

Breaking the Binary that Binds Us: Visualizing and Exploring the Full Spectrum of Abortion Sentiment and Associations

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Abstract:

Intersectional abortion right activists and advocates have a challenge to our efforts: we are forced to argue in a binary pro-anti spectrum that completely obscures the realities of abortion experiences, provision, associations, and emotions. Before we can break out of this binary, we must gather those sentiments and associations that go unspoken and unshared in the debate that roils abortion. To this end, inroads (the International Network for the Reduction of Abortion Discrimination and Stigma) has created a sentiment gathering and thematic mapping tool to gather and explore the wider set of thoughts and associations we hold about abortion. We have results from this tool at the inroads Global Member Gathering and, hopefully, at this conference, we will also discuss possible uses and the following objectives: (1) increase public comfort with discussing and sharing instead of debating and separating; (2) increase knowledge of abortion and emotional health of our communities, patients, colleagues; (3) preparation with the complex realities to respond to adversaries; (4) analyze sentiment and ideas that are theoretical and hard to use, in the abstract, to affect policy without fetishizing experience (5) reduce stigma.

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About inroads

The International Network for the Reduction of Abortion Discrimination and Stigma (inroads) was launched in 2014 to provide needed and critical community space for those working on abortion stigma-busting efforts. Rooted in a commitment to end abortion stigma and create a world that bends toward care and reproductive justice, inroads works towards freedom for past, present, and future abortion seekers by funding movements and strengthening connections within the global community of abortion advocates, artists, scholars, activists, journalists, community workers, and providers. We envision a world where abortion care is centered around the needs, experiences, leadership, and requirements of those who have them. Learn more on makeinroads.org



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"Abortion controversy"

"Abortion debate"

"Culture war"

Prochoice vs Prolife

Maternal rights vs fetal rights

Moral vs immoral

Good abortions vs bad abortions

People who have abortions vs people who have children

People who provide abortions vs people who provide maternal care

Safe vs unsafe

The public discourse around abortion tends to be framed in dichotomies. It's painted as a battle between two opposing camps, as a topic that can only ever be considered in terms of controversy. These common discourses pose questions that, rather than acknowledging abortion as a nuanced issue, can only be answered in a binary, only as an either/or proposition: Are the rights of a pregnant person or a fetus more important? Is abortion morally right or morally wrong? Is this person pro-choice or pro-life? Are people who seek abortion victims or criminals? Various studies have demonstrated that these polarizing frames are evident in the news media (Ferree *et al.*, 2002; Larsson *et al.*, 2015), among policymakers (Kulczycki, 2007; O'Rourke, 2016; Pierson & Bloomer, 2017; Rodríguez-Ruiz, 2016), among advocates, (McCaffrey & Keys, 2000), and in other public spheres.

Private discourse on abortion, on the other hand – the way we talk about abortion among our peers, or under expectations of confidentiality – often differs dramatically from public discourse. These conversations are more likely to involve disclosure of personal feelings and experiences, involve more complexity and more nuance (Beynon-Jones, 2017; Herold *et al.*, 2015), or show that individuals have to navigate their perceived moral complexity of abortion in a context of social constraints (Gilbert & Sewpaul, 2015). As individuals, we can accommodate, internalize, and understand a wide variety of thoughts, feelings, and associations related to abortion. Indeed, in their study of community-based abortion education, Bloomer, O'Dowd, and Macleod find the need to intentionally create "dialogical spaces" that allow "genuine contemplation of real people and their complex situations", and space to "resist the silencing" that they might experience elsewhere (Bloomer *et al.*, 2017). We need these sorts of dialogical spaces as correctives. When most public spaces force us into the discursive constraints of right/wrong, pro/con, good/bad orientations, conversers become combatants and the absolute binary papers over the complexity of our own experiences. The false dichotomy is harmful; if it's all we're allowed to commit to public or semi-public record, then it's all the public will hear about abortion. Furthermore, that perpetuation

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of abortion as a binary issue can increase the contrast on our own associations with and thoughts about abortion, changing our memories and experiences in a way that benefits and furthers debate rather than mutual understanding.

The increasingly loud, binary, public polarization of abortion has obscured individual experiences, sentiments, or associations with abortion. It allows no nuance, no consideration. In the face of gross injustices, of sometimes violent opposition to abortion, of public shaming and criminalization, of stigma, and of the socioeconomic or cultural constraints within which people must navigate abortion pathways, it has been necessary to push back. However, in the struggle to counter and re-counter arguments, to frame and re-frame messages in light of evolving anti-abortion tactics, abortion advocates have ceded that ground to have and express feelings about abortion. When the predominant public discourse around abortion is so frequently framed in only one dimension (the political or the legal), and furthermore as a firm binary (either for or against, legal or illegal, moral or immoral), we're unable to position abortion as a reality in peoples' lives, to acknowledge the myriad ways that people experience and think about abortion.

As human beings with many identities and roles, we make meaning of abortion in many ways: as health care providers; as people who have sought, had, or considered abortion; as friends, partners, and family members of people who have sought, had, or considered abortions; as activists; as citizens; as consumers or creators of culture; as policymakers or advocates; as educators; as children; as parents. There is diversity not just in who we are as people, but in how we think about abortion, and we need to acknowledge that. The complex ways in which we make meaning of abortion are compounded in complexity by the way that race, gender identity, socioeconomic status, geography, trauma history, access to care, political economy effect how we live every day, how we get access to care, how we expect to be treated, and how we process our experiences and associations. A person who had to travel hundreds of miles and pay exorbitant, illegal fees may feel mostly relief, joy, and heartiness even after an abusive or harrowing experience. A person facing very few barriers to getting to the clinic but had a trauma history that the experience of care elicits may feel dread, shame, and sorrow. These experiences are tied to our experiences and our positionality in a diverse and diversely oppressive world. Our personal experiences, our roles, our places in the world all have an impact on how we think, feel, and speak about abortion. Abortion is a very human experience, and has been for thousands of years. And in the human experience there is nuance, there is sometimes ambivalence, there is the beautifully human ability to understand complexities, and our public discourse on abortion should reflect these capacities.

We look with excitement and appreciation to a number of recent efforts to break down abortion binaries and position abortion as a common experience that means different things to different people – through story sharing (#ShoutYourAbortion, 2018; Abortion Conversation Projects, 2018; Madera, 2018; The Sea Change Program, 2018), through filmmaking (Irish Family Planning Association, 2013), through book

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clubs (Herold et al., 2015), through speak outs and opportunities to explore and discuss personal values and attitudes (Bloomer et al., 2017; Turner & Page, 2011). We see the sentiment gather following in these footsteps as efforts to break out of binary and policy debate dominated mold, while also hoping to ask people to both step back from story to reflect or learn from storytelling to discover the associations and values we associate with abortion. Our contribution to this ongoing and vibrant effort is the creation and launch of a sentiment gathering and thematic mapping tool to gather and explore the wider set of thoughts and associations we hold about abortion.

The Sentiment Gatherer has its roots in a participatory arts event, in a project developed by Siobhan Clancy and Katie Gillum (one of our authors), both independent artists at the time involved the Abortion Rights Campaign, then continued to be informed by the experience of supporting inroads members in their storytelling, story listening, and destigmatizing efforts. With those foundations, the Sentiment Gatherer has developed as a tool that we hope supports more nuanced conversations about abortion, to dismantle that binary, and explore peoples' experiences and associations with abortion in a more holistic and humanizing way. The inroads Sentiment Gathering tool uses a word association task to collect peoples' myriad associations with and thoughts about abortion, and provide real-time thematic analysis of those associations using a dynamic visualization. The tool development team consisted of project lead and innovator, Katie Gillum, inroads co-convener; inroads and Ipas web developer Kyle Goetschius; Ipas librarian Alli Buehler; and Dan McCarey, data visualization designer at Maptian.

Most sentiment analysis or opinion mining programs are designed to measure attitude, stance, polarity, or intensity of feeling about a subject: essentially, whether people like something, don't like something, or are neutral about it. They are frequently used with social media posts, comment sections, review websites, or other online forums. For instance, a sentiment analysis program applied to social media posts bearing an abortion hashtag might show the number of users who support or oppose abortion, how strongly users feel about abortion, or the types of emotions users express about abortion. This is a useful line of inquiry, but when it is the only line of inquiry, we neglect the fuller picture of what abortion means to people. What we are attempting to do with our tool is rather to show the breadth of ways people think about abortion, the ways they connect it with other aspects of their lives. Our aim is not to place value on those associations, or to discover where people are positioned in the abortion debate, but to recognize a diversity of themes in the ways they think about abortion, and use those findings to start and support conversations that move beyond binaries. We're looking for another way to tell the whole story. Each color represents a major theme, and each shade represents a sub-theme.

The Sentiment Gatherer begins with a simple user interface, operable from a computer, notebook, or other mobile device. Users are prompted with a question – "What words come to mind when you think about abortion?" – and may enter five words into the text field. Upon submitting those five words, as well

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as optional and anonymous demographic information, the data visualization changes to reflect those new contributions, perhaps adding to the expansion of a color or shade, or prompting a new color or shade to appear in the visualization.

The data visualization is key to the user experience and to the research. It is very deliberately a circle, an expanded sunburst chart with outer borders removed, and segments radiating outward. A circle is wholeness, integrity, completeness, and we want users to be able to see themselves as a part of a meaningful whole, as well as to be able to see that whole and the multiplicity within it. This is a visualization of inclusion, rather than of exclusion – there is no negative space in it. Each color represents a major theme, and each shade represents a sub-theme. The immediacy and dynamism of the visualization was as important to us as its form. As the number of submissions grows, as more people enter the space and contribute to the Sentiment Gatherer, users should be able watch those changes unfold, to see how the composition of the room shifts. They should also see that their contribution is fundamentally additive and included, that they aren't simply a single representative dot on a large disparate mapping or that they are only connected to another small group of people as in a star map or cluster graph. This is a tool that will allow us to be able to see, and thus sense more fully, how a room, a conference a group, or a community experiences and thinks about abortion at that moment.

We were able to create this real-time, automated data visualization because of the expansive lexicon on the back end of the tool, and the system of classification that provides its structure. Our lexicon currently contains approximately 1,000 entries, classified according to a taxonomy of 12 major thematic areas that we call domains, each of which has from 2 to 4 sub-categories, or subdomains. Each color of the visualization represents one of the domains, and each shade represents a sub-domain.

<i>Domains</i>	<i>Subdomains</i>					
Cultural	Language	Social norms & values	Arts	Media & Pop culture		
Economic	State costs	Systems costs	Personal costs			
Geographic	Relative geography	Physical geography	Human geography			
Institutional	Military	Education	Religious	Nonprofit	Health systems	

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Interpersonal	Interpersonal interaction	Interpersonal violence	Partner relationships	Peer relationships	Family relationships	
Legal	Penal	Jurisprudence	Legislation	Human rights		
Individual	Personal experiences	Spiritual self	Sexual self	Psychological self	Physical self	
Political	Political processes & structures	Political communication & messaging	Political actors	Activism		
Medical	Data/Statistics of procedures	Reproductive health	Health outcomes	Procedure	Medicines	Equipment & supplies
Temporal	Relative time	Units of time				
Demographic	Race & ethnicity	Socioeconomic status	Sex & gender	Age		
Conceptual	Conceptual (general)	Numeric associations	Auditory associations	Visual associations	States of existence	

For example, the word *misoprostol* would be classified into the *Medical* domain, and the *Medicines* subdomain. The word *crime* would be classified into the *Legal* domain and the *Penal* subdomain. The word *future* would be classified into the *Temporal* domain and the *Relative Time* subdomain.

This lexicon is meant to be dynamic, able to expand to accommodate as wide as possible a range of associations. We started the lexicon by doing an analysis of the words used in the inroads Collaboration Workspaces and listserv, extending that initial corpus with entries from existing sentiment word lists, and added words that filled noticeable gaps *. . . In building this lexicon we were compelled to consider word tenses, word forms, variant spellings, words with multiple meanings. We plan to continue adding new terms as they are suggested by users of the tool and through further engagement with subject matter experts.

There are several levels of interaction that users may have with the Sentiment Gatherer. Users engage with the initial invitation interface. With this, we aimed for ease of use and simplicity of design. When

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posed with a typical word association task, a person is free to pull from any of the tens of thousands of words that they have in their vocabulary. We cannot hope to, nor would we want to replicate that in our lexicon, but we do want to have a robust enough lexicon that it feels to users as if the tool is anticipating or welcoming their word selections and thus their experience with abortion.

Users also engage with the data visualization as an image, with no words, only colors and proportions that shift and move with each new person who interacts with it. In this level of engagement, it is an interactive art piece, with each change demonstrating a new facet of thought, a new association, behind which invariably is a unique set of individual experiences, informed by a personal history with abortion as a concept, as a lived experience, as a component of belief system. This level of engagement invites visitors to contemplate, to regard both themselves and their peers as abstracted colors in a shifting visual landscape.

Users are also invited to engage with the visualization as an abstracted data display, with domains and subdomains labeled. At this level, users may focus on and interpret results, on a more explicit visual analysis of the themes in the group's associations with abortion.

We launched the prototyped Sentiment Gatherer at the inroads second annual global member gathering – a participatory, interactive, five-day convening in Zagreb, Croatia. inroads is a global network with the shared goal of creating a world free of abortion stigma and shifting the conversation on abortion. Members who attended the gathering were advocates, community workers, activists, researchers, health care providers, and donors from around the world. We introduced the Sentiment Gatherer at the start of the week, and invited inroads members throughout the week to visit the Sentiment Gatherer station and interact with the tool. During the week, the visualization projected on the screen was unlabeled, showing colors and proportions, but not the names of domains and subdomains.. On the final day of the meeting, we shared the results with all the members and, as a group, reflected on our experiences with the Sentiment Gatherer, and what we learned from it.

Throughout the week, as people interacted with the Sentiment Gatherer, we noted their reactions, their comments, and their questions. Some of these focused on basic usability issues (e.g. font sizes, page layouts, clarity of instructions), and we both anticipated and welcomed the feedback. What we found most interesting about peoples' interactions with the Sentiment Gatherer were the ways they approached it, and the ways that they wanted to continue to interact with it. Because the Sentiment Gatherer uses a word association task, we imagined that users would respond to it in that way – quickly, automatically, with the first words that came to mind. Instead, we found that people dwelled on their word choices, savored the opportunity to craft a list of the words that would be most meaningful to and most representative of them. Some came to the Sentiment gatherer with a list of five words already drafted, and they held these lists as if they were precious. As one member said of the experience, "It felt like composing a five-word story about abortion." Where we mostly expected off-the-cuff responses, we got

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thoughtfully curated word lists. We expected users to find meaning primarily in the results, in the data visualization, but we saw users finding as much meaning in the process of thinking about how they think about abortion, in the metacognitive act of creating their word lists.

We were also struck by the degree to which some members wanted to dive into the results as quickly as they'd entered their words. Perhaps because of the way we staged the interaction with the Sentiment Gatherer, with a week-long wait between introduction and revelation of the meaning of the colors and shades on the visualization, a few members expressed confusion, a few expressed frustration, and others an intense curiosity. The implicit questions seemed to be, "What is this saying about us?" and "Where am I in this?"

During the course of the meeting, we added approximately 200 new words to the lexicon. These were words that were entered directly into the Sentiment Gatherer and assigned to appropriate domains and subdomains, as well as additional relevant words that we heard during meeting sessions and discussions. New words included *journalist*, *necessary*, *comrade*, *doula*, *vulva*, *tension*, *prejudice*, *hotline*. Some of the 200 new words were forms of words already in the lexicon (for example variants of the words *power* and *empower*). Among the most frequently submitted words at this gathering were *health care*, *normal*, *liberation*, *compassion*, *sadness*, *collective*, *fear*, *choice*, *solidarity*, *purpose*, *sex*, *autonomy*, *restriction*.

By far, the most represented domains at this meeting were *Individual*, with the bulk of those words falling into the *personal experience* and *psychological self* subdomains, followed by the *Legal* domain, with a large majority of those words falling into the *Human Rights* subdomain. In all, 11 of the 12 thematic domains were reflected in the words submitted by inroads members at their global gathering.

Members interpreted these data as making visible the variety and diversity of the members' contributions to the effort to dismantle abortion stigma, and that meeting participants showed up to the gathering as "whole people," for whom abortion has varied and complex meanings. One member noted that "the sentiment gatherer represents the way we move through emotions and experience as humans - we need to go more to explore this part of abortion stigma, not just the medical and legal side of things." For one participant, the results demonstrated the power and inclusiveness of the inroads network, which recognizes experience as expertise: "There's no specific qualification to be here as part of this network. The main thing is passion to end abortion stigma. The main categories [in the taxonomy] are a caption of life in totality. You cannot define life better than this."

Members also had suggestions for application of the Sentiment Gatherer. Among those suggestions, several people wondered whether they could use this tool to be more strategic in framing conversations with different communities and in different settings. One member suggested using it in conjunction with other "unified contexts" like the inroads meeting, rather than on focusing on spaces of debate, where self-expression and self-disclosure are less safe or less easy. Because of the Sentiment Gatherer's lack

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of polarity, one member saw possibility in using this as means to both collaborate and to challenge understandings. One researcher at the meeting suggested that this might be an interesting tool to apply to media content analyses, and another thought it could have potential to inform language used in direct research with abortion providers and abortions seekers. Several people have suggested it would be a useful way to reflect on the progress of a multi-day meeting or conference or training.

We do acknowledge a number of limitations of the Sentiment Gatherer, as it now stands. Recognizing that it is still essentially a prototype, we expect, based on additional user testing and subject-matter expert feedback, to make some adjustments in the design of the interface, and some refining of the lexicon and taxonomy. Other limitations include language; we currently have an essentially American English lexicon and taxonomy. This is problematic not only because it excludes users who are speakers of other languages, but because American English is a product of and centers the cultural experiences, assumptions, and histories of Americans. Even among American English speakers, definitions can be elastic; words may have different meanings between different cultures, regions, communities, generations. Words fall in and out of favor, shift meaning over time. It is our intention in the next rounds of user testing to interrogate both the lexicon and the structure of the taxonomy for those assumptions, as well as for any instances of bias, value judgment, or unintentional stigmatization, and make changes as required. Another limitation is one of accessibility – this is a primarily visual interaction. How might the user experience change with an audio display of data, or a tactile display?

The Sentiment Gatherer is a tool; once refined, tested, and applied in different settings, it will still be only a tool. Our hope, though, is that this tool will support more nuanced, holistic, and humane conversations. We invite you to contribute your words, your associations.

Founding Sentiment Gatherer Team:

- Concept and Creative Lead: [Katie Gillum](#)
- Developer: [Kyle Goetschius](#)
- Information Architecture: [Alli Beuhler](#)

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