

WHAT IS SOCIAL JUSTICE?

Social justice pertains to how participants in a society can and should be treated such that everyone receives a 'just' return in exchange for their contributions [1]. Definitions of justice differ widely over time and cultural context, so it is difficult to find a singular definition of what social justice is. Broadly, our view is as Merrett [2] states: "there are no guarantees of happiness, only the guarantee to pursue happiness."

Distributional justice asks 'how can we distribute resources/outcomes fairly based on a set of inputs?' Under this framework, equal justice only considers one input, a person's humanity [1, 3], thus they deserve the same outputs. In contrast, equity theory says output should be proportional to one's input. The 'inputs' deemed important must be negotiated amongst members in a society; However, Walster and Walster [1] argue that this negotiation is dominated by those with power in the society.



Procedural justice ignores input altogether, opting to view outcomes as 'just' if the process used to derive them is 'just' [2, 3]. Merrett [2] argues that distributional and procedural justice can coexist constructively, asking "in the race for success, can there be equality of opportunity if participants don't begin at the same starting line?" embedding distribution into the procedure of striving for happiness. Though these definitions are unclear as justice is nebulous and context-dependent, we believe that they are linked by the core belief that everyone deserves the opportunity to strive for a future that they want.

Within the sphere of social justice, we have chosen to focus on menstrual justice. Menstrual justice aims to combat "the oppression of menstruators, women, girls, transgender men and boys, and non-binary persons, simply because they menstruate" [4]. This oppression manifests in myriad ways, including the 'tampon tax' (taxes applied to menstrual products such as pads and tampons despite other products for biological processes, such as lip balm and Viagra, are tax exempt) [4] and other economic injustice, social stigma, discrimination, harassment, and more [5]. These burdens significantly inhibit one's freedom and ability to 'strive for a future that they want' and thus, by our definition, is a social justice issue.

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- [1] Walster, E., & Walster, G. W. (1975, July). Equity and social justice. *Journal of Social Issues*, 31 (3), 21-43. doi: 10.1111/j.1540-4560.1975.tb00001.x
[2] Merrett, C. D. (2004, May). Social justice: What is it? why teach it? *Journal of Geography*, 103 (3), 93-101. doi: 10.1080/00221340408978584
[3] Tyler, T. R. (2000, April). Social justice: Outcome and procedure. *International Journal of Psychology*, 35 (2), 117-125. doi: 10.1080/002075900399411
[4] Johnson, M. E. (2019). Menstrual justice. *UC Davis L. Rev.*, 53, 1.
[5] Crays, A. (2020). Menstrual equity and justice in the United States. *Sexuality, Gender & Policy*, 3(2), 134-147.

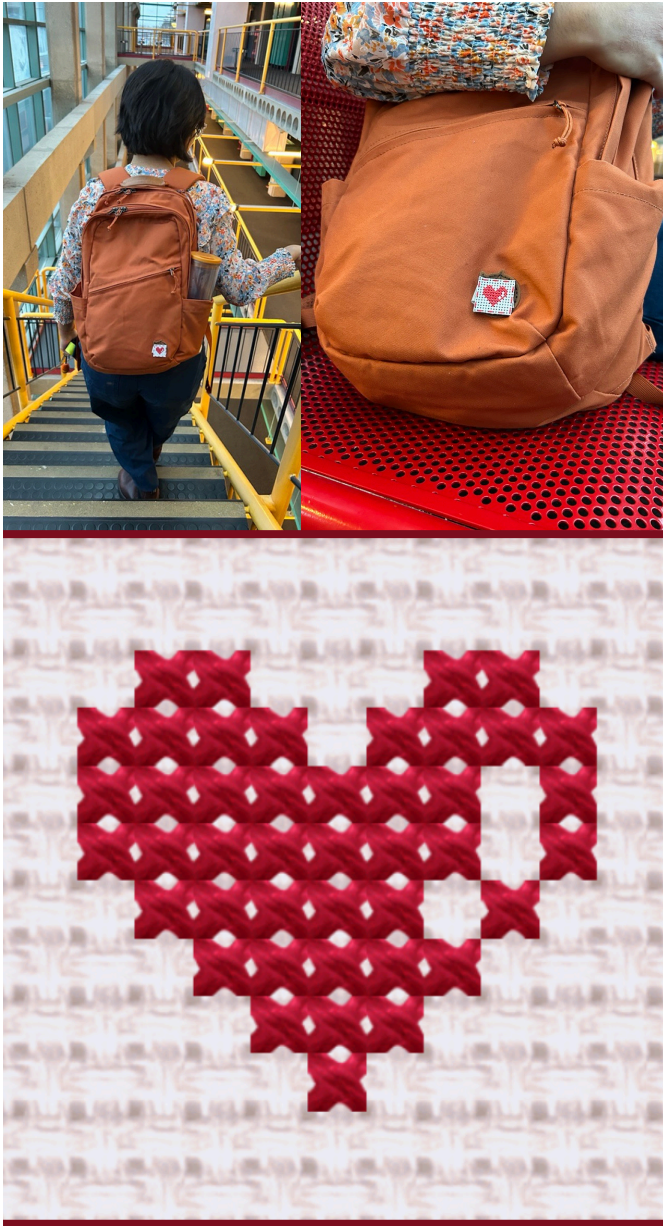
PERIOD PAL

Connect with other menstruators.
Reflect on your emotional experiences.
Analyze your symptoms.

Take **control** of your period.

With PeriodPal, you can wear your emotions on your sleeve. The colours on PeriodPal's iconic keychain can be changed depending on your mood, allowing you to display to the world your feelings throughout your menstrual cycle. By connecting with the PeriodPal app, you can keep track of your thoughts as they relate to your cycle and manage your pesky symptoms. Our state-of-the-art algorithm will analyze your data and provide personalized insights into your cycle. PeriodPal let's YOU take control of your body.

The PeriodPal community forum is a welcoming and safe environment to share your experiences as a menstruator and connect with others similar to you. You can post as yourself, or anonymously, and comment on other people's thoughts. At PeriodPal, we strive to create a strong, tight-knit community of menstruators.



Features:

- A colour-changing electronic keychain
- Online journal and symptom-tracker
- Anonymous community forum
- AI-based analysis to provide health insights

To the future:

- Tampons and pads delivered to you
- Anticipating needs related to your menstrual cycle

NETFLIX ORIGINAL

BLACK MIRROR

2023 TV-MA 5 Seasons

"Bloodline"

When her mother, Clara, has a tragic miscarriage, the life of Ellie is turned on its head. Ellie, a young trans-girl, navigates her awkward life at Rainy River Middle School, dodging spit wads and keeping her head down. Life becomes even more complicated when all of her classmates get their periods, and start using PeriodPal. Ellie, desperate to fit in but unable to menstruate, steals her mother's PeriodPal and begins wearing it at school to great success. Meanwhile, Clara and her husband have been trying for a second child for months and have been using PeriodPal to properly track her cycle and fertility window. The couple finally had hope that they had conceived, until one morning Clara has a miscarriage. Using data from PeriodPal, the government tracks down Clara and arrests her for the loss of this pregnancy due to the suspicious gap in her data. The family's lives are upended, with Clara arrested for her "abortion" and Ellie getting outed at school for using a "fake" PeriodPal.

Creator: Team Social JustSis

▶ NEXT EPISODE

+ MY LIST



AN IMAGINED FUTURE

Exploring the generational impact of PeriodPal on women, trans people, and those who are gender non-conforming.

This world is one where abortion is criminalized and menstrual cycles are policed using the technology PeriodPal. Clara must navigate the stress of being unable to conceive, while being monitored closely by the government. As a mother, the job of parenting and helping her young daughter to feel confident despite the prejudice she faces also falls to her, with her husband being unnamed and unhelpful. By following Clara's perspective, we can see how this technology can be used negatively by existing power structures to further control women and criminalize their biological functions. In this world, PeriodPal has helped misogyny thrive.

Ellie is unaware of her mother's struggles, as most young kids are, and in a desperate effort to feel included she steals her mother's PeriodPal. Through Ellie's lens we see how PeriodPal has become incredibly popular and practically mandatory for all people who menstruate. Ellie, as a young trans girl, cannot menstruate and is unable to use PeriodPal, which puts her at a high risk of being outed or ostracized at school. Ellie's perspective illustrates how the technology can propagate bioessentialist

ideas around womanhood and harm indirect stakeholders. At the story's climax, Ellie is forcibly outed at school when it is revealed that she stole her mother's PeriodPal and can't use its features. Clara is arrested for a suspected abortion based on the data generated through her PeriodPal, which is altered when Ellie steals it.

Both stories are woven throughout the episode, as we follow mother and daughter working through their struggles together and separately. Period Pal is explored through two generations, as it affects menstruators at all stages of their lives. The protagonists are examples of why menstrual equity and reducing the stigma of periods is so important, and how our technology can inadvertently be used against those values. Clara's arrest could have been prevented with stronger privacy safeguards, such as local data storage/processing and more stringent data consent practices.

The truth of this episode is that this is already the reality for so many women and gender non-conforming people today.

AN IMAGINED FUTURE

In this future world where the use of PeriodPal is widespread, one group may benefit - but at what cost? Who is paying that cost? Who suffers the most from privacy breaches and the effects that such a technology would have on society? We present some vignettes of contrasting experiences that the widespread use PeriodPal may cause.

LIFE IN A PERIODPAL SOCIETY

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Growing up around the topic of menstruation normalizes it

People are discovering their bodies and sexualities as they go through puberty openly and without shame

10

15

Menstruators get familiar with their cycles and the data from period pal helps them get better medical care (eg. menstrual disorder diagnosis)

20

Menstruators are able to get their menstrual products easily and affordably

50+

Menopause causes feelings of gender dysphoria but they find community on Period Pal's online forum



PERIODS AND CULTURE

Our current society's adherence to patriarchal values is what necessitates menstrual equity and motivates our product. The cultural habit of menstrual stigma is what shapes our product. We hope that the product does change cultural habits to combat menstrual oppression by destigmatizing menstruation, building community among menstruators, and spurring change at societal levels.

DATA FEMINISM & PERIOD PAL

— RESPONSIBLE ARTIFICIAL INTELLIGENCE —

The founders of Period Pal develop a Responsible AI framework in collaboration with Lauren Klein & Catherine D'ignazio, the authors of 'Data Feminism' (2020) [1]

The use of artificial intelligence (AI) has skyrocketed in the past 2 years, with the release of OpenAI's chatGPT.

At the same time, concerns around the ethical considerations of AI has increased, including the risk of bias, unreliability, and privacy. To ensure that the advancement of Period Pal is driven by ethical principles, we have collaborated with Klein & D'ignazio to instill intersectional feminist practices into the technology.

Period Pal incorporates analysis of menstrual data through machine learning (ML) techniques to help users understand their symptoms in relation to other menstruators, and potentially determine signifiers of menstrual disorders such as polycystic ovarian syndrome (PCOS) or endometriosis. This data analysis can also be used to connect community members who experience similar symptoms. But to ensure this is done properly, we have involved menstrual health scholars to both examine the power structures and capitalist incentives in relation to the original goal of our technology.

Period Pal deals with extremely sensitive data of some of the most marginalized members in society, and with the overturning of *Roe v. Wade* in the United States in 2022, menstrual tracking apps have gotten under fire for identifying menstruators who have gotten abortions [2]. Period Pal does not want to cause further harm to menstruators through the criminalization of the right to an abortion or any other medical procedures. For this reason, privacy is tantamount to user safety.



We also need to rethink the gender binary since not all menstruators are women, and not all women menstruate. Our goal is not to perpetuate that menstruation is a signifier of womanhood, which is why PeriodPal emphasizes the use of gender-inclusive language while incorporating the perspectives of gender-diverse individuals when analyzing menstrual data.

The most complete knowledge comes from synthesizing multiple perspectives. Often, there is a power imbalance between the creators of a system and who is potentially harmed by that system. Thus, PeriodPal prides itself on its participatory design approach - we collaborate with menstrual equity activists and those who use menstrual equity services to develop an application that best meets user needs.

AI is also incredibly resource intensive on the environment, contributing to climate injustice. It primarily benefits people in the global north, but disproportionately impacts those in the global south. Therefore, we have collaborated with Crusoe to mitigate both energy waste and methane emissions through their Digital Flare Mitigation® technology [3].

[1] L. Klein and C. D'ignazio, "Data Feminism for AI," in Proceedings of the 2024 ACM Conference on Fairness, Accountability, and Transparency, in FAccT '24. New York, NY, USA: Association for Computing Machinery, Jun. 2024, pp. 100–112. doi: [10.1145/3630106.3658543](https://doi.org/10.1145/3630106.3658543).

[2] C. Vidal and J. Merchant, "Ethical challenges of using digital menstrual tracking apps for birth control and conception," 2022.

[3] "Crusoe." [Online]. Available: <https://crusoe.ai/>

PARTICIPANTS NEEDED



PeriodPal is looking for volunteers to participate in a study of period stigmatization in our society. We are looking for two distinct groups of participants: **menstruators** and **menstrual equity activists**.

General study participants should meet the following criteria:

1. 18 years of age
2. Experiences a menstrual cycle

We are also looking for menstrual equity activists who are active in our community.

1 INTERVIEW STUDY

Participants will be asked to complete a 30-45 minute semi-structured interview about their experiences as a menstruator using PeriodPal.

We would like to inquire about the level of period stigmatization in menstruators' lives, both structurally and personally. Similarly, we want to gather information about the emotions menstruators associate with periods, and if they experience physical and emotional changes throughout their cycle.



2 PARTICIPATORY DESIGN

We are also interested in working with you to develop the next generation of PeriodPal. Participants will be asked to attend a participatory design session where they will take part in the development of PeriodPal 2.0. We ask you to attend 3 design workshops of approximately 2-3 hours each.

Your opinion matters. Participation in this study is voluntary.

For more information please contact info@period.pal.

