

# Feminist Methodology in Technology Research

## **A Literature Review**

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# **Table of Contents**

Introduction	3-4
Section I - Conceptual Framework	5-13
Standpoint Theory	5-7
Feminist Empiricism	7
Feminist Historical Materialism	8
Critical Realism	9
(Anti) Essentialism and Constructionism	9-10
Reflexivity and Positionality	11-12
Intersectionality	12-13
Action Research Towards Political Goals	13
Section II - Methods	
Introduction	14
Qualitative Methods	15-24
Oral History: Digital Storytelling	15-16
Archival Research	17
Ethnography and Cyberethnography	17-19
Feminist Legal Methods	19-20
Consciousness Raising	20-21

Conclusion	28
Speculation and Action in Big Data Research	27-28
Measuring Intersectionality and Eliminating Bias	26-27
Feminist Demography and Surveys	24-26
Quantitative Methods	24-28
Critical Discourse Analysis	23-24
Focus Groups	22-23
Interviews	21-22

### Introduction

According to authoritative accounts on the subject, while research focused on gender or women predates its arrival, the field of 'feminist methodology' explores questions of epistemology and ontology of research and knowledge¹. Initiated in scholarship arising out of the second wave of North American feminism, it theoretically anchors itself in the post-modernist and post-structuralist traditions. It additionally critiques positivism for being a project furthering patriarchal oppression². North American feminist scholars critique traditional methods within the social sciences from an epistemological perspective, for producing acontextual and ahistorical knowledge, replicating the tendency of positivist science to enumerate and measure subjective social phenomena. This, according to them, leads to the invisiblising of the web of power relations within which the 'known' and 'knower' in knowledge production are placed³. This is then used to devise methods and underlying principles and ethics for conducting more egalitarian research, aimed at achieving goals of social justice.

The second wave feminist movement was itself critiqued by Black and other feminists from the global South for being exclusionary of non-white and non-heterosexual identities<sup>4</sup>. Given its origins in the global North, scholars from the South have interrogated the meaning of feminism and feminist research in their context. Some African scholars even detail difficulty in disclosing a project as feminist publicly due to popular resistance to the term feminism, which stems from it being rejected by certain social groups as an alien social movement that's antithetical to their "African cultural values"<sup>5</sup>. Their own critique of "White feminism" comes from its essentialization of womanhood and the resultant negation of the (neo)colonial and racialised histories of African women<sup>6</sup>. This has led scholars from the global South to critically interrogate feminism and feminist methods. They acknowledge the multiplicity of feminisms, and initiate creative inquiries into different forms of feminist methodology. Feminist researchers that work in contexts of political violence, instability, repression, scarcity of resources, poor infrastructure, and/or lack of social security, have pointed out that

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<sup>&</sup>lt;sup>1</sup> M. Wickramasinghe, Feminist Research Methodology: Making meaning out of meaning-making, Zubaan, 2014

<sup>&</sup>lt;sup>2</sup> M. Metso and N. Feuvre Le, 'Quantitative Methods for Analysing Gender, Ethnicity and Migration', *Universite de Toulouse-Le Mirail*, December 2006

<sup>&</sup>lt;sup>3</sup> M. Westcott, 'Feminist criticism of the social sciences', in J. M. Nielsen (eds.), *Feminist Research Methods*, CO: Westview Press, 1990

<sup>&</sup>lt;sup>4</sup> P. Hill Collins, Black Feminist Thought, New York: Routledge, 1990

<sup>&</sup>lt;sup>5</sup> A. Mama, 'What does it mean to do feminist research in African contexts?', Feminist Review Conference Proceedings, 2011

<sup>&</sup>lt;sup>6</sup> F. Chege, 'Doing Gender and Feminist Research in Developing Countries: The African Context', *Conference Paper presented at the Annual Research Institute*, *Aga Khan University, Dar es Salaam*, November 2012; see also C. Mohanty, footnote 23

traditional research methods assume conditions that are largely absent in their realities, leading them to experiment with feminist research<sup>7</sup>.

Feminist research across these variety of contexts raises ontological and epistemological concerns about traditional research methods and underlying assumptions about what can be known, who can know, and the nature of knowledge itself<sup>8</sup>. It argues that knowledge production has historically led to the creation of epistemic hierarchies, wherein certain actors are designated as 'knowers' and others as the 'known'. Such hierarchies wreak epistemic violence upon marginalised subjects by denying them the agency to produce knowledge, and delegitimize forms of knowledge that aren't normative. Acknowledging the role of power in knowledge production has the radical implication that the subjectivities of the researchers and the researched inherently find their way into research and more broadly, knowledge production. This challenges the objectivity and "god's eye view" of traditional humanistic knowledge and its processes of production<sup>9</sup>. Feminist research eschews scientifically orthodox notions of how "valid knowledge will look", and creates novel resources for understanding epistemic marginalization of various kinds.<sup>10</sup> It then provides a myriad of tools to disrupt structural hierarchies through and within knowledge production and dissemination.

Feminist research, given its evolution from living movements and theoretical debates, remains a contested domain. It has reformulated a range of qualitative and quantitative research methods, and also surfaced its own, such as experimental and action-based. What these have in common are theoretical dispositions to identify, critique, and ultimately dismantle power relations within and through research projects. It is thus "critical, political, and praxis oriented" Several disciplines with the social sciences, such as feminist technology studies, cyberfeminism, and cultural anthropology, have built feminist approaches to the study of technology and technologically mediated social relations. However, this continues to remain a minor strand of research on technology.

Feminist methodology provides a critical lens that allows us to explore questions and areas in technology-based research that are inaccessible by traditional methods. This paper draws on examples from technology-focused research, covering key interdisciplinary feminist methods across fields such as gender studies, sociology, development, and ICT for development. In doing so, it actively constructs a history of feminist methodology through authoritative sources of knowledge such as published papers and books<sup>12</sup>.

<sup>&</sup>lt;sup>7</sup> A. Mama, footnote 5

<sup>&</sup>lt;sup>8</sup> S. Reinharz, Feminist Methods in Social Research New York and Oxford: Oxford University Press, 1992.

<sup>&</sup>lt;sup>9</sup> S. Madhok and M. Evans, 'Epistemology and Marginality', in M. Evans (ed.) *The Sage Handbook of Feminist Theory*, London, SAGE, 2014, pp. 1-9.

<sup>&</sup>lt;sup>10</sup> S. Madhok and M. Evans, ibid.

<sup>&</sup>lt;sup>11</sup> D. Burns and M. Walker, 'Feminist Methodologies', in B. Somekh and C. Lewin (eds.), *Research Methods in the Social Sciences*, SAGE Publications, 2005

<sup>&</sup>lt;sup>12</sup> M. Wickramasinghe, footnote 1

The review is structured as such: Section I goes over concepts underlying feminist research methods, which form the framework within such methods are operationalised. This includes both principles and theoretical perspectives that overlap and underpin the methods discussed in Section II, which deals with a range of qualitative and quantitative research methods.

# **Section I - Conceptual framework**

#### **Standpoint theory**

'Standpoint' theorists practice the production of knowledge from the perspective of those who are marginalised. Sandra Harding, a feminist philosopher, has been at the forefront in articulating that gender identity informs the subjectivity of the knower, their practices of inquiry, and their conception of knowledge<sup>13</sup>. It shifts the epistemological point of entry of knowledge to lived experiences, with the assertion that experience is always socially constructed and mediated by language and discourse<sup>14</sup>. It is argued that actors who live on the margins have experience and therefore intimate and unique knowledge of the structures of oppression that those at the centre of dominant structures cannot have. This legitimises their testimonies as knowledge of oppression. Standpoint theory aims to narrativize the 'lived experience' of marginalised subjects, as also the 'embodiedness' and materiality of their oppression. This is understood to be different to relativism, which would treat the positions of knowledge-makers and their subjects as equal. By addressing testimonies of experiences of those at the margins, standpoint theory challenges both the structural oppression of the marginalized as well as the hierarchy between 'strong objectivity' and testimonial knowledge.

This also allows feminist research to approach inquiry from the perspective of the actors being studied, rather than imposing predefined categories within academia. For instance, looking at surveillance through the lens of gender gives a point of entry into the harms done by pervasive corporate and state-led surveillance on marginalized groups, therefore indicating its normativizing effects on society through a disciplinary gaze<sup>15</sup>. The productive and repressive effects of 'the gaze' of surveillance cannot be demonstrated but from the perspective of an intersectional analysis<sup>16</sup>. Technology may be then seen as simultaneously transforming and aiding communication, mobilization, and networking, but also strengthening state biopower and the use of state surveillance<sup>17</sup>.

<sup>&</sup>lt;sup>13</sup> S. Harding, The Feminist Standpoint Theory Reader: Intellectual and Political Controversies, Routledge, 2003

<sup>&</sup>lt;sup>14</sup> R. Undurraga, 'Interviewing women in Latin America: some reflections on feminist research practice', *Equality, Diversity and Inclusion: An International Journal*, vol. 31, no. 5/6, pp. 418 - 434

<sup>&</sup>lt;sup>15</sup>A.Kovacs, 'Gendering Surveillance: An Introduction', 2017, can be accessed at <a href="https://genderingsurveillance.internetdemocracv.in/theory/">https://genderingsurveillance.internetdemocracv.in/theory/</a>

<sup>&</sup>lt;sup>16</sup> N. Shepherd, 'Big data and sexual surveillance', APC Issue Papers, 2017

<sup>&</sup>lt;sup>17</sup> A.Van Der Spuy, 'Mapping gaps in research in gender and information society', *GenderIT*, 2017

Standpoint theorists, *through* their research, aim to disrupt dichotomies and hierarchies around which knowledge is organised, including masculine/feminine, culture/nature, cosmopolitan/backward, global/local. This includes the binary classification of nature and technology - attributed to "society's pervasively male epistemology", which limits the kinds of questions ICT based research can explore<sup>18</sup>. Asha Achuthan through a historical study of the material and sociological evolution of the internet in India, challenges the notion that technologies are developed in the global North and deployed in the South<sup>19</sup>. This is an instance of the larger epistemic project of disrupting the hierarchy between the global North as the producer of knowledge and the South as the passive space upon which this knowledge acts.

Standpoint theorists also aim to disrupt hierarchical relations within the research process, including outsider/insider, powerful/less, local/stranger, etc. This produces a conflicted "double consciousness" for feminist researchers, as they try to dismantle structures of power within knowledge production while themselves occupying a position of power as privileged producers of knowledge<sup>20</sup>. This position is further complicated as feminist researchers are often marginalised within academia due to their radical praxis or marginalised identities.

A central critique of standpoint theory is made by practitioners such as Alcoff, who grapples with the anecdotal nature of oral testimonies, as well as the effacement of uniqueness in human experience in favour of patterns in sociological research<sup>21</sup>. Another critique is aimed at the possible impulse to appropriate the perspective of the subjects of research, particularly by treating testimonials or oral histories uncritically. While such methods can be used to examine the "unnaturalness of the entrenched patriarchal order in knowledge", researchers who do not treat non-traditional methods with as much rigour as traditional methodology risk marginalizing it further by not engaging with it critically<sup>22</sup>.

In her seminal paper, 'Under Western Eyes: Feminist Scholarship and Colonial Discourses', Mohanty argues that feminist scholarship from the global North treats "Third World women" across boundaries of class, sexuality, caste, and religion as one undifferentiated category of equally and uniformly oppressed identities<sup>23</sup>. This is reflective of the impulse in standpoint theory to romanticize or fetishize the subjectivity of the 'oppressed'. This could be mitigated by accompanying the narrativization of experience with the study of the processes, structures, and discourses that produced the subjectivity of the subjects of the research. This would allow a broader social critique by

<sup>&</sup>lt;sup>18</sup> A. Stone, 'Will the Real Body Please Stand Up?', in Michael Benedikt (eds.), *Cyberspace: First Steps*, MIT Press, Cambridge, Massachusetts, 1991

<sup>&</sup>lt;sup>19</sup> A. Achuthan, 'Re:wiring Bodies', *Histories of the Internet in India*, The Centre for Internet and Society, 2011

<sup>&</sup>lt;sup>20</sup> L. Stanley and S. Wise, *Breaking Out: Feminist Consciousness and Feminist Research*, Routledge & Kegan Paul, London, 1983

L. Alcoff, 'The Problem of Speaking for Others', Cultural Critique, No. 20, 1991-92, pp. 5-32

<sup>&</sup>lt;sup>22</sup> L. Code, 'Feminist epistemology and the politics of knowledge: questions of marginality', in *The SAGE Handbook of Feminist Theory*, M. Evans et al. (eds.), SAGE, London, 2014

<sup>&</sup>lt;sup>23</sup> C. Mohanty, 'Under Western Eyes: Feminist Scholarship and Colonial Discourses', *boundary 2*, Vol. 12, No. 3, 1984, pp.333-358

marking lived experience as the interplay of structural relations. It could also acknowledge that not every center is equally privileged, and not every margin equally silenced or oppressed.

Another criticism of standpoint epistemology is that it places the burden on the marginalised to speak about their own experiences, be it academically or politically.<sup>24</sup> Such critics of standpoint theory recommend 'positionality' as the approach to be adopted, wherein anyone can write or speak on behalf of the marginalised, though with due acknowledgement of their unique position in a socio-political hierarchy. Essentially, positionality accepts that no position in a hierarchy has exclusive access to the truth, and insists on the incorporation of multiple perspectives to arrive at it.<sup>25</sup>

#### **Feminist empiricism**

As opposed to standpoint theory, which relies on techniques such as personal accounts, feminist empiricism attempts to locate and legitimise multiple forms of knowledge, including marginalized and local knowledge, with existing methods of objectivist research in the social science. Wickramasinghe argues that feminist empiricism retains the political goals of feminist research broadly, and is hence not entirely objectivist<sup>26</sup>. It struggles with the opposing tendencies within early feminist theory to understand all knowledge as 'radically historically specific', in its attempt to devise a "feminist version" of objectivity<sup>27</sup>. Feminist objectivity in empirical research highlights the situatedness of knowledge and partiality of perspectives, acknowledging the limitations this places upon such knowledge<sup>28</sup>. This is a different epistemic starting point than standpoint theory, as it retains the 'truth-value' of scientific inquiry while qualifying it as always partial and situated. Quantitative methods in the feminist tradition fall within this school of thought, with the assertion that feminists will remove eliminate sexist biases from objective research to produce more accurate data and knowledge.

Feminist empiricism is cognizant of the multiplicity of local knowledges, as well as their "unequal translation and exchange" with dominant knowledge<sup>29</sup>. It then looks at the translatability of knowledge between different social groups and communities in the matrix of oppression and privilege, with the aim of conducting and disseminating research in ways that speaks to a range of such groups. Free/libre software can be viewed within this lens as a catalyst towards producing locally accessible infrastructure for context-specific utility. Feminist empiricism has been critiqued for its refusal to

<sup>&</sup>lt;sup>24</sup> S. Rege, 'Dalit Women Talk Differently: A Critique of 'Difference' and Towards a Dalit Feminist Standpoint Position', *Economic and Political Weekly*, Vol. 33, No. 44, pp. WS39-WS46, Oct. 31 - Nov. 6, 1998

<sup>&</sup>lt;sup>25</sup> K. Bartlett, 'Feminist Legal Methods', *Harvard Law Review*, Vol. 103, 1990

<sup>&</sup>lt;sup>26</sup> M. Wickramasinghe, footnote 1

<sup>&</sup>lt;sup>27</sup> D. Haraway, 'The Science Question in Feminism and the Privilege of Partial Perspective', *Feminist Studies*, Vol. 14. No. 3., 1988

<sup>&</sup>lt;sup>28</sup> D. Haraway, ibid.

<sup>&</sup>lt;sup>29</sup> D. Haraway, ibid.

problematise the role of the researcher, and ignore power relations within the research project and the epistemology of knowledge<sup>30</sup>.

#### Feminist historical materialism

Drawing on the emphasis in feminist theory on the sexual division of labour, and the Marxist paradigm of historical materialism, Hartsock makes connections between standpoint theory and the theory of labour value<sup>31</sup>. She argues that the sexual division of labour accords fundamentally different epistemologies to feminized and masculinized workforces, given the dependence of knowledge upon the economic base. This is driven by the structuring of the social fabric and domination of knowledge production by the perspective of the ruling gender (or class). The epistemological framework applied here acknowledges the existence of the surface level reality/truth shaped by the dominant gender, but also that of the deeper layer of oppressed knowledges - much like Marx's account of the theory of surplus labour value. The task of the researcher then becomes to question these 'truths' at the surface level and expose deeper layers.

This theoretical approach can be taken to provide a third dimension, that of political economy, to biological essentialism and social constructionism in the debate on identity, gender, and gendered social relations. For instance, Ruberg applies a historical materialist approach to argue that amateur porn artists are feminised and exploited as workers in the 'gift economy' of pornography online<sup>32</sup>. This is structured on the basis of an "advert-driven, intensely capitalist framework", which derives value by directing profits to hosting platforms while refusing to acknowledge the labour of the workers in the porn videos. In another instance, Sarah Roberts identifies social and emotional costs borne by Indian, Filipino, and Southeast Asian labourers who review contested content produced by users for and on platforms owned by corporations in the global North, "queering" the understanding of social media platforms<sup>33</sup>.

Apart from exploring questions of the political economy of gender and social relations, feminist materialism also allows the exploration of the political economy of the research project. This could be done by posing questions such as who are the actors who stand to benefit or lose through the research process; whose physical, mental and emotional labour goes into the research; whose resources are being used, etc. In the space of ICT research, this would also imply attempting to break away from reliance on proprietary platforms and software which are created by, owned, and stand to profit corporate

<sup>&</sup>lt;sup>30</sup> S. Harding, Feminism and Methodology, Buckingham: Open University Press, 1987

N. Hartsock, 'The Feminist Standpoint: Developing the Ground for a Specifically Feminist
Historical Materialism', in Sandra Harding and Merrill Hintikka (eds), Discovering Reality: Feminist
Perspectives on Epistemology, Metaphysics, Methodology, and Philosophy of Science. Dordrecht: Reidel, 1983
B. Ruberg, 'Doing it for free: digital labour and the fantasy of amateur online pornography', Porn Studies,
Vol. 3, Informa UK (Taylor and Francis), 2016

<sup>&</sup>lt;sup>33</sup> S. T. Roberts, 'Commercial content moderation: Digital laborers' dirty work'. In S. U. Noble & B. Tynes (Eds.), *Intersectional Internet: Race, sex, class and culture online*, 2016, 147–160. New York, NY: Peter Lang.

enterprises, instead supporting free and open source software within the research process<sup>34</sup>.

#### **Critical Realism**

Critical realists presuppose an ontology in which the world is taken to be differentiated into the three domains of: 'the real', 'the actual', and 'the empirical'<sup>35</sup>. The empirical is constituted only by that which is experienced by individuals; the actual is constituted by events which may or may not be experienced; while the real is constituted by those mechanisms or causal powers that generate the series of events that mutually constitute subjectivities and experiences. This entails the view that the world has depth and that 'the real' cannot be reduced simply to experience, including the experience of the subject.

Critical realism typically employs a case study method, concerned with seeking theoretically informed explanations of social phenomena. The approach brings with it an assumption that there is an underlying truth that is amenable to explanation and that research should be concerned with identifying the social causes and effects of the object under study. In the research process, the researcher evaluates the stories and accounts of the women and then she selects excerpts that best describe their situation according to her knowledge. Feminist researchers often involve the women being studied in the process of interpreting their narratives. It is an instance of feminist empiricism, as research results are presented as scientific social truth-claims, open to corroboration and criticism<sup>36</sup>.

#### (Anti) Essentialism and Constructionism

While collecting, analysing, and classifying gendered data, understanding the distinction between an essentialist approach and a constructionist one is crucial. Essentialism is most commonly understood as a belief there is a real 'essence' of things - fixed properties which define 'what' an entity is. Gender is then biologically constituted, with women and men having a 'feminine' and 'masculine' essence consisting of certain qualities each. Constructionism, on the other hand, argues that gender is a historical social construction: it takes the approach of investigating social and material practices, discourses and ideologies that work together to produce seemingly 'natural objects' – concerned above all with the production and organization of difference<sup>37</sup>. Constructionism, in its attempt to break down categorization, acknowledges the existence of some basic social categories. Therefore, it has a fundamental dependency upon essentialism. Crenshaw thus argues that it is never prudent to be entirely

<sup>&</sup>lt;sup>34</sup> M. E. Luka and M. Millette, '(Re)framing Big Data: Activating Situated Knowledges and a Feminist Ethics of Care in Social Media Research', *Social Media and Society*, vol. 4, no. 2, 2018

<sup>&</sup>lt;sup>35</sup>S. Parr, 'Integrating Critical Realist and Feminist Methodologies: Ethical and Analytical Dilemmas', *International Journal of Social Research Methodology*, Vol. 18, Issue 2, pp. 193-207, 2015

<sup>&</sup>lt;sup>36</sup> S. Parr, ibid

<sup>&</sup>lt;sup>37</sup> D. Fuss, Essentially Speaking: Feminism, Nature and Difference, Routledge, 1989

essentialist or anti essentialist, since what matters is who is deploying the essentialism/anti essentialism and to what end<sup>38</sup>.

Different manifestations of essentialism within feminist theory has made it a contentious debate - for instance, feminists who argue that feminist research can only be carried out by women have been critiqued for essentializing gender and treating 'women' as a stable and unified category<sup>39</sup>. This points towards conflicting tendencies in feminist epistemology to treat gender both as a socially constructed identity as well as the basis of forming a collective politics towards achieving specific goals. In the field of ICT research, these debates have surged in the sub-field of 'feminist constructivist technology studies', which aims to investigate the 'coproduction of gender and technology<sup>40</sup>. According to Landstrom, while this sub-field has resisted technological determinism, it tends to 'black-box' gender identity and only treating technology as socially constructed<sup>41</sup>.

For instance, multiple studies have found that designers and engineers, heavily male-dominated occupations, tend to model technological interfaces for male users making it easier for men to relate positively to technology<sup>42</sup>. Such analysis treats gender identities of producers and users as stable, rather than as performed or constructed in the process of designing or using technology. This goes against the theoretical positions advocated by feminist social constructivism. In treating all women as "outsiders because technology is masculine"<sup>43</sup>, such research risks invisibilizing the experiences of non-heterosexual women that do not adhere to mainstream models of femininity. Queer scholars argue for the treatment of subjectivity as formulated within an assemblage of non-humans and humans, invoking Haraway's conception of the cyborg, wherein she advocates for the radical breakdown of binaries between the human, the animal, and the machine. This conceives of gender, sexuality, and technology as open to reformulation through performance in future encounters, rather than as a sum of past behaviour<sup>44</sup>. The onus is then equally put on heteronormativity and masculinist technology for creating barriers to access to technology for females.

This implies that rejecting the treatment of gender and other social categories as stable, acontextual, and pre-existing forms of identity shifts and reframes the kinds of questions that researchers can ask. For instance, a study looking at the effects of automation on the female workforce through a feminist lens could assess what participants understand

<sup>&</sup>lt;sup>38</sup> K. Crenshaw, 'Mapping the Margins: Intersectionality, Identity Politics, and Violence against Women of Color', *Stanford Law Review*, Vol. 43, No. 6, 1991

<sup>&</sup>lt;sup>39</sup> D. Burns and M. Walker, 'Feminist Methodologies', in B. Somekh and C. Lewin (eds.), *Research Methods in the Social Sciences*, SAGE Publications, 2005

<sup>&</sup>lt;sup>40</sup> W. Faulkner, 'The Technology Question in Feminism: A View from Feminist Technology Studies', *Women's Studies International Forum*, vol. 24, no. 1, 2001, pp. 79–95

<sup>&</sup>lt;sup>41</sup> C. Landstrom, 'Queering Feminist Technology Studies', Feminist Theory, vol. 8, no. 1, 2007

<sup>&</sup>lt;sup>42</sup> N. Oudshoorn, E. Rommes and M. Stienstra, 'Configuring the User as Everybody: Gender and Design Cultures in Information and Communication Technologies, *Science, Technology & Human Values*, vol. 29, no. 1, 2004, pp. 30–63

<sup>&</sup>lt;sup>43</sup> C. Landstrom, footnote 41

<sup>44</sup> E. Grosz, Volatile Bodies: Toward a Corporeal Feminism, St Leonards: Allen & Unwin, 1994

by feminization in the context of the workplace, rather than treating women as a biologically static category that has uniform experiences in the workplace.

#### **Reflexivity and positionality**

As described briefly in the introduction, feminist methodology is critical of the disembodied 'view from nowhere' taken by traditional scientific research. This is taken to be reflective of the impulse to treat the object of research as absolutely knowable by the objective researcher and establish a sense of control. This 'conquering' nature of masculinist science can been compared to the gaze of the heteropatriarchal colonialist<sup>45</sup>; the gendered, 'all-seeing' gaze of the camera<sup>46</sup>; and the male gaze that treats the woman as the passive object to be consumed<sup>47</sup>. In order to challenge such research, feminist scholars have asked the question - "What does knowledge do?"<sup>48</sup>. In what Sedgwick labels 'paranoid reading', knowledge gets organized in a hidden/shown dichotomy, with the power to 'show' resting with the researcher. Similar to the Marxian concept of false consciousness, this form of research enters the field with the assumption of always already being aware of the structure - of gender, class, etc. The possibility of agency is then already excluded, reifying marginality in the body of the researched.

This has been addressed in feminist practice by critically interrogating the personal and intellectual subjectivity and positionality of the researcher and its effect on the process and production of knowledge. This makes it easier to explicitly identify power relations in the research process by placing the researcher on the same critical place as the subject of research<sup>49</sup>. The conceptualization of the people being studied as agents "itself transforms the entire project of producing social theory"<sup>50</sup>.

Ecofeminists in particular have been lauded for their approach of treating the world as an agential subject, rather than as a static entity to be known<sup>51</sup>. By stressing the importance of extending the borders of research beyond the androcentric, ecological research has brought into focus concepts such as transcorporeality, which "places an ethico-political demand on feminisms to become posthumanist"<sup>52</sup>. For instance, in queer post porn, if a subject is depicted masturbating with a dildo, the human body and the technology become one entity; there is no real boundary between the two<sup>53</sup>.

<sup>&</sup>lt;sup>45</sup> D. Haraway, footnote 27

<sup>&</sup>lt;sup>46</sup> H. Koskela, "The gaze without eyes': video-surveillance and the changing nature of urban space', *Progress in Human Geography*, Vol. 24, No. 2, 2000, pp. 243-265

<sup>&</sup>lt;sup>47</sup> L. Mulvey, 'Visual Pleasure and Narrative Cinema', *Screen*, Vol. 16, Issue 3, 1975, pp. 6-8

<sup>&</sup>lt;sup>48</sup> E. Sedgwick, *Touching Feeling: Affect, Pedagogy, Performativity,* Duke University Press, Durham and London, 2003

<sup>&</sup>lt;sup>49</sup> S. Harding, Feminism and Methodology, Buckingham: Open University Press, 1987

<sup>&</sup>lt;sup>50</sup> D. Haraway, footnote 27

<sup>&</sup>lt;sup>51</sup> D. Haraway, footnote 27

<sup>&</sup>lt;sup>52</sup> A. Neimanis, 'feminist subjectivity, watered', Feminist Review, Issue 103, 2013

<sup>&</sup>lt;sup>53</sup> S. Offerman, 'Dildos and Cyborgs: Feminist Body-Politics in Porn from the 1970s to Posthumanism', *Gender Forum*, No. 37, 2012

Some feminist researchers, such as Patai, critique reflexivity in research as an attempt to erase power hierarchies instead of addressing them due to its potential to allow researchers to create a sense of false intimacy with research subjects, that she views as akin to priming<sup>54</sup>. Stacey further critiques feminist principles of "authenticity, reciprocity, and intersubjectivity", for building a "delusion of alliance" leading to an inevitable betrayal of research subjects<sup>55</sup>, given the the inherent exploitative and manipulative nature of social research. Finally, reflexivity has been critiqued for making researchers less sensitive to privilege as they are able to simply state their privilege and dismiss it without this having any effect on the process of conducting research.

#### **Intersectionality**

Intersectionality demands the incorporation of social difference in the production of knowledge. This implies that social categories overlap in multiple layers of difference that coproduce subjectivity<sup>56</sup>. It has emerged as "the primary theoretical tool to combat feminist hierarchy, hegemony, and exclusivity"<sup>57</sup>. As a scholar of Critical Legal Studies (CLS) who found CLS to be inadequate in capturing the experiences of Black women, Crenshaw coined the term 'intersectional' to capture the diversity of experience amongst marginalized groups<sup>58</sup>. She argues that the experiences of Black females cannot be grappled using either the lens of race or gender in isolation, and attempting to do so enables the theoretical erasure of the experiences of Black female from history. Intersectional politics is centred around the idea that the experiences of the subject interact with multiple lens of exclusion or privilege, and are reducible to none of these.

Given its origin in CLS and Crenshaw's attempt at centralising the effects of the identity of the subject on legal and policy frameworks, intersectionality can be employed to better understand how policy "constructs citizens' relative power and privileges with regard to their status, health and wellbeing"<sup>59</sup>. This can be done by employing an intersectional analysis (acknowledging the factors which contribute to the marginalization and privileging of some identities over other) to improve existing tools designed to analyse (in)equity. Since its theoretical origin, intersectionality has been employed by scholars, practitioners, and activists across a range of disciplines and practices to question the extent theirs and others work is inclusive of identities across gender, class, race, caste, disability, age and other social margins.

<sup>&</sup>lt;sup>54</sup> D. Patai, 'U.S. Academics and Third World Women: Is Ethical Research Possible?', in S. Gluck and D. Patai (eds.), *Women's Words: The Feminist Practice of Oral History*, Routledge, London, 1991, pp. 137-153

<sup>&</sup>lt;sup>55</sup> J. Stacey, 'Can There Be a Feminist Ethnography', *Women's Studies International Forum*, Vol. 11, No. 1, 1988, pp. 21–27

<sup>&</sup>lt;sup>56</sup> G. Spivak, 'Can the Subaltern Speak', in C. Nelson and L. Grossberg (eds.), *Marxism and the Interpretation of Culture*, University of Illinois Press, 1988

<sup>&</sup>lt;sup>57</sup> J. Nash, 'Re-thinking Intersectionality', Feminist Review, 2008

<sup>&</sup>lt;sup>58</sup> K. Crenshaw, 'Demarginalising the Intersection of Race and Sex: A Black Feminist Critique of Anti-discrimination Doctrine, Feminist Theory and Antiracist Politics', *University of Chicago Legal Forum*, Vol.140. Issue 1, 1989

<sup>&</sup>lt;sup>59</sup> O. Hankivsky (ed.), 'An Intersectionality-Based Policy Analysis Framework', *Institute for Intersectionality Research and Policy*, 2012

This also forces feminist scholars to explore the impact of exclusions within the feminist movement itself. Nash argues that intersectionality only served to name a pre-existing commitment with certain sections of feminist scholars to destabilize and question the essentialization of women or femininity<sup>60</sup>. A critique of intersectionality argues that intersectionality further reifies difference by treating White female subjects as the norm against which all other subjectivities are categorized as 'different'<sup>61</sup>. Nash further points out the tendency of intersectional analysis to ignore intragroup differences, which could treat women from marginalised groups as monolithic entities<sup>62</sup>. She also points out that there is ambiguity about whether intersectionality is a theory of identity being shaped by multiple social vectors, or specifically examining the identity of those who have been pushed to the margins of power. She argues for pushing intersectional analysis to explore ways in which oppression and privilege intersect at different historical moments to form identities in complex ways.

#### Action research towards political goals

Following from the rejection of knowledge as objective and distanced from the subject. feminist research is geared towards achieving specific political goals. Rejecting notions of objective distance and neutrality has the implication that all knowledge is political, and feminist research is then conducted with the explicit purpose of empowerment of marginalised groups who are engaged within the research project. This includes producing knowledge through activism, by designing research that actively intervenes in social relations and power structures<sup>63</sup>, or producing knowledge that supports activism, by looking at local and context-specific issues with a structural lens to "demystifying existing gendered systems of domination"64, or research on activism, documenting the struggles of marginalised communities. A strategy to achieve political goals through research is to recognize resources that could be accessed easily by agential subjects in a given context, and produce knowledge mobilising such resources. An example of this could be offline and online spaces fostering personal narratives of survivors of sexual violence<sup>65</sup>. Bandarage advocates for using local languages and cultural forms, such as music and theatre within the process of research to derive local and informal knowledges<sup>66</sup>.

<sup>&</sup>lt;sup>60</sup> J. Nash, footnote 57

<sup>&</sup>lt;sup>61</sup> J. Puar, "I would rather be a cyborg than a goddess": Becoming Intersectional in Assemblage Theory', *State University of New York Press*, Vol. 2, Issue 1, 2012, pp. 49-66

<sup>62</sup> J. Nash, footnote 57

<sup>&</sup>lt;sup>63</sup> L. Wanasundera, 'Research and Information', in CENWOR (ed.) Facets of Change - Women in Sri Lanka (1986-1995), Centre for Women's Research, Colombo, 1995

<sup>&</sup>lt;sup>64</sup> A. Mama, footnote 4

For examples of such spaces, see <a href="http://www.blanknoise.org">http://www.blanknoise.org</a>; <a href="https://howrevealing.com">https://howrevealing.com</a>; <a href="https://howrevealing.com">https://howrevealing.com</

Bandarage, 'Women and Capitalist Development in Sri Lanka', Bulletin of Concerned Asian Scholars, Vol.
1988, pp. 57-81

The ethics of intersectional feminism enable researchers to theorise difference, while the commitment to political mobilisation mandates a focus on commonality<sup>67</sup>. These can produce critical tensions and creative synergies. This purpose then drives the processes of data collection, analysis, and dissemination, with the objective of addressing community needs and making knowledge-making equitable and participative. This allows the researcher to critically treat their own political objectives, rather than aligning with linear trajectories of development. This also implies enhancing community ownership of processes and outputs of research wherever possible<sup>68</sup>.

## **Section II: Methods**

#### Introduction

Risman asks the question: Is one method a priori more feminist than another?<sup>69</sup> The argument therein is that there isn't one specific method or combination of methods which make certain research "feminist", but it is instead necessary for the research to come from a perspective that is considerate of the multifaceted and intersectional nature of gender and power relations<sup>70</sup>. While qualitative methods have been preferred and revived by feminists for being more conducive to addressing power relations and bringing out the voice of the subject, some scholars have argued that quantitative methods have the potential to forward political struggles by measuring material inequality and cultural attitudes at large scales as well as over time<sup>7172</sup>. Narayan further argues that empiricist and quantitative methods have the capacity to challenge cultural hegemony through a scientific perspective<sup>73</sup>.

These are also phenomena that are generally considered "hard to measure", and as such have been neglected in traditional quantitative inquiry. For instance, the struggle for gender parity in workspaces has been strengthened by measuring the differential value accorded to the labour of male and female workers, disproportional care burdens on females globally, and definitions of work that are unable to capture aspects of women's labour, including reproductive and emotional labour. It is also argued that research projects that measure gender disparity and marginality are more useful for supporting

<sup>&</sup>lt;sup>67</sup> J. Nash, footnote 54

<sup>&</sup>lt;sup>68</sup> F. Chege, 'Doing Gender and Feminist Research in Developing Countries: The African Context', *Conference Paper presented at the Annual Research Institute, Aga Khan University, Dar es Salaam*, November 2012

<sup>&</sup>lt;sup>69</sup> B. J. Risman, 'Methodological Implications of Feminist Scholarship', *The American Sociologist*, Fall/Winter 1993, pp. 15-25

<sup>&</sup>lt;sup>70</sup> G. Beetham and J. Demetriades, Feminist Research Methodologies and Development: Overview and Practical Application, Taylor & Francis, 2007.

<sup>&</sup>lt;sup>71</sup> J. Sprague and M. K. Zimmerman, "Quality and Quantity: Reconstructing Feminist Methodology", *The American Sociologist*, Spring 1989, pp. 71-86

<sup>&</sup>lt;sup>72</sup> G. Beetham and J. Demetriades, footnote 70

<sup>&</sup>lt;sup>73</sup> U. Narayan, 'The project of a feminist epistemology: perspectives from a nonwestern feminist', in S. Harding (ed.), *The Feminist Standpoint Theory Reader*, Routledge, London, 2004

research interventions such as lobbying and achieving policy change, while methods that explore and contextualise social relations, identities, and experiences are more useful in achieving transformation within communities.

The methodological divide is also structured along the lines of discipline, with 'stronger' sciences including economics, medicine, and psychology remains overwhelmingly quantitative, while humanities and gender studies research is predominantly qualitative <sup>74</sup>. This methodological division between academic fields prevents interdisciplinary cross-pollination, as well as narrows the kinds of research questions each field can ask and answer. A combination of quantitative and qualitative measures can be used to explore different aspects of a research question and uncover hidden variables which interact with technology to determine its societal manifestations.

#### **Qualitative methods**

#### **Oral histories: Digital storytelling**

Researching life histories of marginalised identities is a radical feminist method, especially popular in the global South due to the rich variety of sources, including oral narratives, letters, (auto)biographies, diaries, and a range of archival material that it gives access to. Personal stories become political tools and acquire collective meaning as they are shared<sup>75</sup>. Politicization is also achieved by placing the personal in structural and cultural contexts. It can be a tool of self-representation, placing symbolic power in the hands of the storyteller or author, as opposed to in-depth interviews. Visiblising the experiences of marginalised communities in the public domain destabilizes structures of oppression that operate through silencing their voices. Biographical material allows heterogeneous, layered, and fluid identities to be communicated, rejecting the fixing and possible essentializing of identity in other forms of research<sup>76</sup>.

Media and ICT scholars have devised methods that deal with oral narratives through technologically enabled means, such as digital storytelling. Digital storytelling has the potential to act as a radically participative method that places the onus, partially or fully, for storytelling on the participant. It critiques reflexivity as a token measure in other feminist research methods, that names privileges and oppression and then moves onto "the real work" of "productive neoliberal subjects", i.e. the researchers, without meaningfully disrupting any power hierarchies. This is seen as a result of pressures to produce "evidence-based data" within certain time and funding constraints within the

<sup>&</sup>lt;sup>74</sup> R. L. Cohen, C. Hughes and R. Lampard, 'The methodological impact of feminism: A troubling issue for sociology?', *Sociology*, Vol. 45, no. 4, 2011, pp. 570-586

<sup>&</sup>lt;sup>75</sup> E. Vacchelli and M. Peyrefitte, 'Telling digital stories as feminist research and practice: A 2-day workshop with migrant women in London', *Methodological Innovations*, SAGE, 2018

<sup>&</sup>lt;sup>76</sup> K. Provost, 'Afrekete: the trickster in the work of Audre Lorde', Society for the Study of the Multi-Ethnic Literature of the United States (MELUS), Vol. 20, No. 4, 1995, pp. 45–59

<sup>&</sup>lt;sup>77</sup> C. Rice, et al., 'Making spaces: multimedia storytelling as reflexive, creative praxis', *Qualitative Research in Psychology*, 2018

neoliberal academy<sup>78</sup>. Digital storytelling radicalises the process and output of research, by allowing co-production of narratives and life stories that deal with the emotional, personal, and political. The process, as either a way of data collection, or the final output, "critiques the notion of voice as monolithic and unchanging", as with other forms of storytelling<sup>79</sup>.

In their paper on digital storytelling, Rice et al. emphasize the need to interrogate the stakes involved for different participants - academic researchers might be at risk of being critiqued for producing research that isn't seen as rigorous, while other participants might be at risk of facing resistance within their own communities<sup>80</sup>. For instance, the Association for Progressive Communication's approach to digital storytelling through workshops concentrated on empowering marginalised women through communicating their narratives while imparting digital skills to them through workshops and enabling them to directly integrate storytelling into their work<sup>81</sup>. They also use this as a tool for community building, by bringing participants into a safe forum to discuss their experiences, opening up the possibility of creating a network with community advocates. This allows participants to openly deal with sensitive issues that are difficult to deal with methodologically: traumatic experiences, pleasure, sensuality, among others. This data is also then easier to communicate to wider audiences, including those outside the academy or without formal education or training - making it easier to achieve feminist goals of political mobilisation and transformation<sup>82</sup>. Collectively producing biographical material could have similar effects to consciousness raising in terms of creating politicized communities83.

Similar caveats to methods that rely on the authenticity of the voice of participants, as mentioned above in standpoint theory, can be applied to digital storytelling: researchers need to be careful to treat these accounts rigorously rather than as "authentic" recollections. Narratives of lived experience are necessarily framed to give a sense of direction or progression<sup>84</sup>, derived out of partial memories. Another aspect to be kept in mind is the lack of control the researcher exercises in this method - they are meant to act as a facilitator and can guide the agenda of storytelling, but have very little control over the final output. This also stems from the radical participatory urge of the digital storytelling method. Accordingly, digital storytellers could be critiqued for imposing a narrative upon their participants than culling out their stories. Ideally, the output of this

<sup>&</sup>lt;sup>78</sup> C. Rice, ibid.

<sup>&</sup>lt;sup>79</sup> E. Vacchelli and M. Peyrefitte, 'Telling digital stories as feminist research and practice: A 2-day workshop with migrant women in London', *Methodological Innovations*, SAGE, 2018

<sup>80</sup> C. Rice, footnote 77

<sup>&</sup>lt;sup>81</sup> S. Kannengießer, 'Digital storytelling as a feminist practice', *genderIT*, 3 September 2012

<sup>&</sup>lt;sup>82</sup> R. Nagar, 'Muddying the Waters: Co-authoring Feminisms across Scholarship and Activism', *Dissident Feminisms*, University of Illinois Press, 2014

<sup>&</sup>lt;sup>83</sup> H. Baer, 'Redoing feminism within and outside the neoliberal academy', Women in German Yearbook: Feminist Studies in German Literature & Culture, Vol. 30, 2014, pp. 197–208

<sup>&</sup>lt;sup>84</sup> U. Erel, 'Constructing meaningful lives: biographical methods in research on migrant women', *Sociological Research Online*, Vol. 12, No. 4, 2007, p. 5

method is co-produced, co-owned, and available to research participants to use and disseminate<sup>85</sup>.

#### **Archival Research**

Expanding the sources of knowledge production works to decolonise canons and "patriarchal categories of information"<sup>86</sup>. This questions the data collection practices of traditional research, as opposed to process - with the assertion that the kinds of data collected will fundamentally shape the knowledge it generates<sup>87</sup>. The method then is to produce archives that challenge what credible source Feminist archival research works to surface what Foucault labels "subjugated knowledges" through illegitimate and unqualified data<sup>88</sup>.

Feminist scholars use anecdotes, gossip, misformed histories, and other non-canonical and aberrant narratives to trace histories outside of official and authoritative accounts through archival research. Anecdotes, from which alternative epistemologies can be derived, are performative and historical<sup>89</sup>, while gossip has been used as a subversive tool by women to break the private and public space binary. They both exist through networks of repetitive communication - tracing the trajectories of which can allow access to female and queer histories<sup>90</sup>. ICT researchers implementing this method have looked at a variety of sources including: fan fiction as a source of imaginative "re-envisioning of patriarchal societies"<sup>91</sup>; whatsapp groups as spaces of making and storing intergenerational and transnational connectivities and affective moments<sup>92</sup>; queer and transgender blogs, email lists and bulletins as performative writing that queers cultural codes<sup>93</sup>.

#### **Ethnography and Cyberethnography**

Ethnographic research is geared towards being attendant to social relations and cultural practices of communities, including the distribution of power and resources along

<sup>&</sup>lt;sup>85</sup> A. Gubrium and G. DiFulvio, 'Girls in the World: Digital Storytelling as a Feminist Public Health Approach', *Girlhood Studies*, Vol. 4, No. 2, 2011, pp. 28-46

<sup>&</sup>lt;sup>86</sup> H. Pester, 'Archive Fanfiction: Experimental Archive Research Methodologies and Feminist Epistemological Tactics', *Feminist Review*, 2017

M. Tamboukou, Archival Research: Unravelling Space/Time/Matter Entanglements and Fragments', *Qualitative Research*, Vol. 14, No. 5, 2013, pp. 617–633.

<sup>&</sup>lt;sup>88</sup> M. Foucault, 'Nietzsche, genealogy, history', in D.F. Bouchard (ed.) *Language, Counter Memory, Practice*, Cornell University Press, 1977, pp. 139–164

<sup>&</sup>lt;sup>89</sup> M. Motamedi Fraser, 'Once upon a problem', *The Sociological Review*, Vol. 60, 2012, pp. 84–107.

<sup>&</sup>lt;sup>90</sup>I. Rogoff, 'Gossip as testimony: a postmodern signature', MAKE Magazine, 1995, pp. 6–9

<sup>&</sup>lt;sup>91</sup> M.S. Barr, 'Feminist fabulation', in D. Seed (ed.) A Companion to Science Fiction, Blackwell Publishing, Oxford, 2008, pp. 142–155

<sup>&</sup>lt;sup>92</sup> R. Gajjala, 'Digital Diasporas: Labour, Affect and Technomediation of India', *R&L International*, Forthcoming: December 2020

<sup>&</sup>lt;sup>93</sup> R. Mitra, R. Gajjala, 'Queer Blogging in Indian Digital Diasporas: A Dialogic Encounter', *Journal of Communication Inquiry*, 2008

gendered lines<sup>94</sup>. The underlying assumption is that humans actively make meaning and construct the world around them through interpretation, which will be surfaced through the ethnographic process<sup>95</sup>. It can be used to trace the circulation of objects or widespread processes through multi-site ethnography<sup>96</sup>. It is a long-term project, with the relationships between the researcher and the community being the source of knowledge production, which means that the researcher inevitably comes to bear their positionality upon the knowledge produced. Unlike quantitative methods, the objective of ethnography is not to produce replicable or verifiable research, but to produce historical or narrative accounts and "thick descriptions"<sup>97</sup>, which makes it more conducive to feminist practice<sup>98</sup>. Harnois points out that ethnography originated and has been used historically as a tool of colonial oppression, but has since been used by feminist scholars to work with disempowered communities<sup>99</sup>.

Feminist interventions in ethnographic practice require it to be deeply reflexive, detailing the effects of the subjectivity of the researcher on the relations they establish with communities, and consequently, on the knowledge they produce. This can be done by documenting thoughts, feelings, biases, and assumptions at different stages in the research. Feminist ethnography comes from the recognition that ethnography has historically been done through the perspective of white males. It allows the opening up of the field for female and non-binary researchers, as well as gender and sexuality in the ambit of social relations being studied. Visweswaran argues for a "deconstructive ethnography" that pays attention to refusals, fractures, and silences<sup>100</sup>.

It is particularly focused on the experiences women have of their bodies, reproduction, family, and labour, as well as interrogating the construction of different masculinities including failed or toxic models<sup>101</sup>. Feminist ethnographers can also address power relations inherent to the process of ethnography by co-authoring or working closely with native ethnographers, who have been imbricated within the fabric of the community for longer periods, or by using participant observation methods. It has been used as an "iterative" process, whereby knowledge being produced from the ethnographic process is used to inform or challenge existing feminist theory<sup>102</sup>. Finally, ethnography, including feminist ethnography, has been critiqued for neglecting the influence of broader political

<sup>&</sup>lt;sup>94</sup> E. Buch and K. Staller, 'What is Feminist Ethnography?', in *Feminist Research Practice: A Primer, Second Edition*, S. Nagy Hesse-Biber (eds.), SAGE Publications, London, 2014

<sup>&</sup>lt;sup>95</sup> J. Goldbart , D. Hustler, 'Ethnography', in *Research Methods in the Social Sciences*, B. Somekh and C. Lewin (eds.), SAGE Publications, 2005

<sup>&</sup>lt;sup>96</sup> J. L. Collins, *Threads: Gender, labor, and power in the global apparel industry*, University of Chicago Press, Chicago, IL, 2003

<sup>&</sup>lt;sup>97</sup> C. Geertz, Works and Lives: The Anthropologist as Author, Stanford University Press, Stanford, CA, 1988

<sup>&</sup>lt;sup>98</sup> E. Buch and K. Staller, 'The Feminist Practice of Ethnography', in *Feminist Research Practice*, S. Hesse-Biber and P. Leavy (eds.), SAGE, London, 2007

<sup>99</sup> C. E. Harnois, Feminist measures in survey research, SAGE Publications, Thousand Oaks, CA, 2013

<sup>100</sup> K. Visweswaran, Fictions of Feminist Ethnography, University of Minnesota Press, Minneapolis, 1994

<sup>&</sup>lt;sup>101</sup> C. E. Harnois, footnote 99

<sup>&</sup>lt;sup>102</sup> P. Hill Collins, footnote 4

and economic structures that shape communities, leading researchers to link bottom-up approaches with an analysis of the influence of these structures on meaning-making<sup>103</sup>.

Feminist researchers have often employed the method of 'cyberethnography' as opposed to textual analysis to study data sources in the cyber realm, given that they are dynamic and interactive spaces unlike fixed texts. At the same time, they reiterate the difference in nature of face-to-face and virtual interactions, which makes the positions of researcher and subject more unstable<sup>104</sup>. Gajjala, for instance, in a cyberethnographic study on an emailing list of South Asian feminist, finds that the participants understood the list as a private conversation space than an artefact to be studied, and rejected any studies on the emailing list<sup>105</sup>. This reconfigures the demarcation between private and public, text and interaction, and producer and consumer in the cyberspace.

It is further contingent on the spaces it is being conducted in. research on social media platforms, for instance, will be constrained and shaped by the logics of the platform instituted by multinational corporations. Other factors, such as consent, need to be rethought in cyberethnography - users have differing understandings of what they consent to when they post content on social media platforms, for instance. Affirmative and informed instead of implicit consent then becomes relevant, as what might be researched as "public content" may not have been published with the intent of acting as research material 106.

#### Feminist legal methods

Bartlett, recommends 'asking the woman question' during policy analysis, which entails questioning the gendered implications of a social practice or rule, in an attempt to understand whether women have been left out of consideration - and if yes, in what way, and arriving at ways to correct this omission<sup>107</sup>. This method seeks to examine how the law fails to take into account experiences and values that are more stereotypically feminine, and the means by which existing legal concepts and standards may disadvantage women. For example, if a labour statute is being analysed, asking the woman question would entail looking into whether the statute impacts female labourers differently and puts them at a disadvantage, or whether it fails to take into consideration care duties and gendered division of labour outside of the workplace and so on. Policy, judgments, and legal documents can be questioned for using language that reinforces gender stereotypes and myths<sup>108</sup>. Even while analysing a legal concept - the

<sup>&</sup>lt;sup>103</sup> G.L. Anderson, 'Critical Theory in Education: Origins, Current Status and New Directions', *Review of Educational Research*, Vol. 59, 1989, pp. 240–70

<sup>&</sup>lt;sup>104</sup> D. Jacobson, 'Doing Research in Cyberspace', *Field Methods*, Vol. 11, No. 2, 1999, pp. 127–45

<sup>&</sup>lt;sup>105</sup> R. Gajjala, 'An Interrupted Postcolonial/Feminist Cyberethnography: Complicity and Resistance in the "Cyberfield", *Feminist Media Studies*, Routledge, Vol. 2, No. 2, 2002, pp. 177-193

<sup>&</sup>lt;sup>106</sup> M. E. Luka et al., 'A feminist perspective on ethical digital methods', in M. Zimmer & K. Kinder-Kurlanda (eds.), *Internet research ethics for the social age: New cases and challenges*, Bern, Switzerland, 2017

<sup>&</sup>lt;sup>107</sup> K. Bartlett, 'Feminist Legal Methods', *Harvard Law Review*, Vol. 103, 1990

<sup>&</sup>lt;sup>108</sup> F. Chege, 'Doing Gender and Feminist Research in Developing Countries: The African Context', Conference Paper presented at the Annual Research Institute, Aga Khan University, Dar es Salaam, November 2012

public/private divide, for example - asking the woman question would entail analysing the impact such a divide would have on women, with oppression in the private space, including domestic violence and marital rape in some countries, being left outside the purview of the law.

Heather Wishik recommends framing the woman question not in terms of the 'problem' faced but as the 'life situation' of *all women* in relation to the issue being looked at<sup>109</sup>. For example if the law addresses the economics of divorce (the 'problem' at hand), feminist jurisprudential enquiry will look at the economics of intimacy and parenthood so as to not exclude unmarried teen moms and other unmarried women. Or if the law addresses a 'problem' of nursing home funding for elderly women, feminist jurisprudential enquiry would include homeless elderly women who don't have access to such public aid in the first place.

Another method recommended by Bartlett, feminist practical reasoning, is grounded in the premise that no one community is legitimately privileged to speak for all others<sup>110</sup>. As detailed above, feminist methods seek to reject the monolithic - logical, rational, objective - voice often assumed in male accounts of practical reasoning, and identify perspectives which have not been represented in the dominant culture. Feminist researchers can take into account the diversity of authors of legal materials, as well as whose voices are being amplified in the document - have materials produced by NGOs, unions, and civil society organisations who are able to represent marginalised voices been addressed?

These methods may have the effect of making certain facts more relevant or "essential" to the analysis of legal data than non feminist methods would. Feminist practical reasoning seeks to give a new meaning to rationality. The feminist conception of rationality acknowledges greater diversity in human experiences and the value of taking into account competing/inconsistent claims. It states explicitly the moral and political choices potentially influencing a bias, and seeks to be self aware regarding its implications on existing power structures.

#### **Consciousness raising**

Consciousness raising began as a response to the attempt to appropriate paid labour of female workers by both both socialism and capitalism, while simultaneously undermining of unpaid labour undertaken by these workers in the household. As described by Catherine MacKinnon, it is the "theory of social change of the women's movement" - which meant the second wave of the feminist movement led by White females in the global North<sup>111</sup>. The method was conceptualized as a group of females forming a collective in an intimate space and articulating these experiences of

<sup>&</sup>lt;sup>109</sup> H. R. Wishik, 'To Question Everything: The Inquiries of Feminist Jurisprudence', *Berkeley Journal of Gender, Law and Justice*, 1985

<sup>&</sup>lt;sup>110</sup> K. Bartlett, see footnote 107

<sup>&</sup>lt;sup>111</sup> C. MacKinnon, 'Feminist Marxism, Method, and the State: An Agenda for Theory', *Feminist Theory*, Vol. 7, No. 3. 1982, pp. 515-544

oppression, and thus creating knowledge with the objective of uncovering the political roots of experiences of oppression which were previously conceived as personal<sup>112</sup>.

It encourages female subjects to address internalization as well as external structures of oppression<sup>113</sup>. Collectivization of experience is vital to acquire diversified information. Mies suggests group discussions, rather than individual interviews, can be used to "help(s) women overcome structural isolation... and to understand that their individual sufferings have social causes"<sup>114</sup>. Consciousness raising appropriates the Marxist concept of class consciousness, and defines the emergence of a similar consciousness of oppression. MacKinnon argues that the experience of articulating their everyday realities as well as experience of solidarity transforms previously silent subjects into active subjects with a voice<sup>115</sup>. This is seen as resulting from the elucidation of personal experiences of inequality into the public sphere<sup>116</sup>. A more recent example of consciousness raising can be seen in the #MeToo movement that gained momentum across the globe in 2017, with women from across different contexts publicly sharing their experiences of harassment, encouraging others to do so as part of a global collective<sup>117</sup>. Researchers then have to be trained in facilitation and advocacy than just knowledge building<sup>118</sup>.

#### **Interviews**

In-depth unstructured or semi-structured interviews are one of the most favored research methods in feminist theory. This is due to the ability of interviews to cull out the 'real stories' of research subjects, allowing the researcher to represent the subject in their own voice as far as possible<sup>119</sup>. The objective is to discern the 'meanings' subjects are ascribing to social systems and processes within which they are embedded. Mixed method interviews could be used to test assumptions in a research question or interview guide. This would involve creating a close-ended questionnaire to test assumptions, and essentially get feedback on the questionnaire from the community itself before going in to conduct interviews.

The power hierarchy between the researched and researcher needs to be taken into account at every stage in the interview process. This arises from the power of the researcher to finally interpret the narrative and statements of respondents, and placing

<sup>&</sup>lt;sup>112</sup> C. MacKinnon, ibid.

<sup>&</sup>lt;sup>113</sup> H. Goonatilake, 'Research and information on women', in CENWOR (ed.), UN Decade for Women: Progress and Achievements of Women in Sri Lanka, Centre for Women's Research, Sri Lanka, 1985

<sup>&</sup>lt;sup>114</sup> M. Mies, 'Towards a methodology for feminist research', in *Theories of Women's Studies*, G. Bowles and R. Klein (eds.), Routledge, 1983

<sup>&</sup>lt;sup>115</sup> C. MacKinnon, footnote 111

<sup>&</sup>lt;sup>116</sup>A. Mills et al., 'Consciousness Raising', In Encyclopedia of Case Study Research, SAGE, 2010

<sup>&</sup>lt;sup>117</sup> L. Rosewarne, '#MeToo and Modern Consciousness-Raising', *The Conversation*, 2017, can be accessed at <a href="https://theconversation.com/metoo-and-modern-consciousness-raising-85980">https://theconversation.com/metoo-and-modern-consciousness-raising-85980</a>

<sup>&</sup>lt;sup>118</sup> M. Wickramasinghe, footnote 11

<sup>&</sup>lt;sup>119</sup> S. Hesse-Biber, 'A Re-Invitation to Feminist Research', in *Feminist Research Practice, A Primer, S.* Hesse-Biber (eds.), SAGE, 2014

them in the public domain<sup>120</sup>. This creates a tension between the feminist urge to amplify the voices of the subjects while still maintaining control over the research agenda and objectives - which could bring symbolic violence upon the respondent. Different techniques have been used to address this power hierarchy, such as creating intimacy between the researcher and the researched. This could be achieved through conducting the interview in a space familiar for the research subject, or producing research outputs in ways that can be communicated to the community. An element of reciprocity could be introduced by opening up the conversation at different moments in the interview for the interviewee to ask questions about the interviewer's life or the process of research<sup>121</sup>. Feminist researchers also pay attention to the cultural codes of the community in which they are conducting their interviews, as they shape particular "modes of orality" and speech, inflected by gender, class, age, etc.<sup>122</sup>

Acknowledging the positionality and personal history of the researcher during the process of research is central to feminist methods. In the case of interviews, the assumption is that the interviewer could be affecting the research project in several ways: by picking the subject of research due to a personal interest or connection, influencing the networks they have access to as they pick participants, and their level of familiarity with the community they will be studying. Undurraga also raises concerns about the gender of the researcher affecting the process of interview: she argues that female researchers could be more socialised into gaining skills, such as empathetic listening, that are required during interviewing<sup>123</sup>. Further, the gender of the researcher is also found to affect the kinds of participants they can recruit, and the responses they get from participants<sup>124</sup>.

#### **Focus Groups**

Focus groups are geared towards grappling with group dynamics and norms, social relations, and the social construction of identity and experiences<sup>125</sup>. Participants co-produce meanings and narratives that are particular to the context of the group, which are treated critically. Feminist research is attendant to the structuring of power and social positions in the group, as well as the layers of meanings and interpretations integrated into the narratives of participants. Focus groups are particularly useful as a research method when the subjects of the research are those whose voices are not ordinarily heard, or people who have not been adequately served by traditional research. Given this advantage of focus groups as a research method, it can be used as means to the end of fostering radical social change. When focus group research is aimed

<sup>&</sup>lt;sup>120</sup> R. Barbour, J. Schostak, 'Interviewing and Focus Groups', in *Research Methods in the Social Sciences*, B. Somekh, C. Lewin (eds.), SAGE Publications, 2005

<sup>121</sup> R. Undurraga, footnote 14

<sup>122</sup> A. Mama, footnote 4

<sup>&</sup>lt;sup>123</sup>A.Mama, footnote 4

<sup>&</sup>lt;sup>124</sup>A.Herod, 'Gender Issues in the Use of Interviewing as a Research Method', *The Professional Geographer*, August 1993

J. Sim, 'Collecting and analyzing qualitative data: issues raised by the focus group', *Journal of Advanced Nursing*, Vol. 28, No. 2, 1998, pp. 345–52

at a particular marginalized community, it enables the development of collective understanding of a shared problem in the voice of those affected by the problem themselves, and thus often helps find solutions to the problem as well. It can then be a form of consciousness raising.

While initially considered useful only as a supplementary research method, it is now understood that they can be used not only in addition to other methods, but as a sole method as well. The collective and interactive nature of focus groups becomes particularly useful for a qualitative, interpretative study of cultural and social life, and thus is an important feminist research method. The data obtained through the focus group method exists in a very specific context and is largely unique to the members of each distinct focus group. If the end result sought is in-depth data about the collective construction of the social world, focus groups are an ideal method. They are particularly useful for research into sensitive topics such as sexual and domestic violence, which tend to be difficult for women to speak about unless in an informal, relaxed setting such as the one a focus group would provide.

While conducting a focus group it is important to ensure that the line between focus groups and group therapy is not blurred. Some participants may overdisclose, while others may feel intimidated by the presence of certain group members and not be comfortable speaking. The researcher ought to be alert as to the relationship shared by members of the group, and keep in mind that a group consisting of persons known to each other will furnish results very different from a group in which the participants are strangers. Finally, the researcher ought to consciously avoid the portrayal of the focus group itself having been a means to improve the social positions of those involved. Focus groups are merely a research method and ought to consciously be treated as such.

#### **Critical Discourse Analysis**

Critical discourse analysis (CDA) is a qualitative method used often by feminist scholars, especially in the discipline of media studies. The method treats text and images as research objects, by understanding them as sites of social meaning-making. It does not attempt to draw causal links between cultural objects and their intentions or interpretations of producers or consumers, but rather identify trends and patterns in meaning-making at given historical moments. Postcolonial and feminist scholars have argued that visual imagery and textual objects can be used to produce and naturalise difference between social groups, as these are embedded in a matrix of social relations <sup>126</sup>. Feminist CDA treats discourse as a contested realm - a shifting domain on which power struggles materialise<sup>127</sup>.

Apart from the politics of representation, media scholars also attend to embodied and experiential elements of consuming cultural objects<sup>128</sup>. This could include determining

<sup>&</sup>lt;sup>126</sup> G. Rose, Visual methodologies, Sage Publications, London, 2016

<sup>&</sup>lt;sup>127</sup> M. Lazar, 'Feminist Critical Discourse Analysis: Articulating a Feminist Discourse Praxis', *Critical Discourse Studies*, Vol. 4, No. 2, 2005, pp. 141-164; N. Fairclough, *Media discourse*. Bloomsbury Academic, London, 1995

<sup>&</sup>lt;sup>128</sup> L. Hansan, 'Hanan al-Cinema: Affections for the Moving Image', MIT, 2015

ways in which a text or image attempts to persuade viewers of a certain version of reality and meaning over others, or produce "effects of truth"<sup>129</sup>. The objective is not to determine the truth or falsehood of a certain text/image, but establish the discourses and institutions it is arising out of, and the positions it is legitimising<sup>130</sup>. However, in its attempt to challenge dominant discourses, CDA has been critiqued for ignoring alternative discourses that arise of marginalised social groups<sup>131</sup>.

There are multiple techniques and models to implement CDA, which determine layers, or "orders", of discourse<sup>132</sup>. One layer is the identification of norms or conventions of meaning-making within certain themes (say, rape) or types (say, newspapers) that a text or image replicates or challenges. For instance, Grewal analyses national media representations of rape in Australia and France, concluding that they reproduced racialised tropes of the violent social 'Other' by over-representing minority groups as perpetrators and majority groups as victims<sup>133</sup> - a trope which can be seen across reportage on rape globally<sup>134</sup>. Analysts also pay as much attention to what is absent what is not said or seen, which can be as productive as that which is visible. These absences could include certain social groups, or certain dimensions of that group's history and identity<sup>135</sup>. Further, subjects belonging to certain social groups could discursively be granted agency, while excluding others. The analyst could identify the voices which the discourse is legitimising, while also exploring the political economy of production and consumption. Another layer could be to place the object in a circuit of intertextuality, by identifying other cultural objects to which it is linked<sup>136</sup>.

#### **Quantitative methods**

#### Feminist demography and surveys

Demography and feminist research have been practiced as absolutely distinct fields due to their different concepts of epistemology. Social constructionism of gender, which has been largely accepted within gender theory, has not been integrated in demographic research. Positivism and quantification have come into conflict with the theory of social constructionism due to their treatment of gender as "stable categories of social

<sup>129</sup> G. Rose, footnote 126

<sup>&</sup>lt;sup>130</sup> R. Stam and L. Spence, (1983). 'Colonialism, Racism and Representation: An Introduction', *Screen*, Vol. 53, No. 1, 1983, pp. 2–20

<sup>&</sup>lt;sup>131</sup> G. Rose, footnote 126

<sup>&</sup>lt;sup>132</sup>A. Pollack, 'Analyzing TV documentaries', In *Qualitative discourse analysis in the social sciences*, Palgrave Macmillan, Basingstoke, New York, 2008

<sup>&</sup>lt;sup>133</sup> K. K. Grewal, Racialised Gang Rape and the Reinforcement of Dominant Order: Discourses of Gender, Race and Nation, Oxon: Routledge, Abingdon, 2017

<sup>&</sup>lt;sup>134</sup> See T. Horeck, , 2004; J. Kitzinger, 2009; A.J. Kabir, 2010

<sup>&</sup>lt;sup>135</sup> R. Stam and L. Spence, 'Colonialism, racism and representation', *Screen*, Vol. 24, No. 2, 1982, pp. 2-20.

<sup>&</sup>lt;sup>136</sup> M. Lister and L. Wells, 'Seeing beyond belief: cultural studies as an approach to analysing the visual', in T. Van Leeuwen, C. Jewitt, *The handbook of visual analysis*, SAGE Publications, London, 2004, pp. 61-91

organisation", thereby essentializing gender, race, and other social categories<sup>137</sup>. Feminist critiques of demography and surveys stem primarily from this epistemological difference. Crocker<sup>138</sup>, for instance, critiques a survey instrument measuring experiences of sexual violence amongst females in Canada for questions that pre-defined females as victims and males as aggressors<sup>139</sup>, which worked to efface agency and intersectionality amongst respondents.

Williams suggests that the cross-pollination of feminism and demography would be particularly useful in democratizing data collection and producing more accurate and context-specific data<sup>140</sup>. This is especially relevant due to the utilization of demographic data as a "technology of control" through policy decisions that affect females and marginalized groups all over the world - including on migration, population control, and abortion<sup>141</sup>. Demography has thus been viewed as a purely objective and positivist field despite its intensely political application. Critically, it has been found that gendered quantitative research has been concentrated in areas that, while imperative to study, reinforce gender stereotypes. For instance, researchers studying migration in the global North found that gendered data was focused on human trafficking, reinforcing the categorisation of women as victims of domestic servitude or sexual exploitation, while data on migrant labour was focused on male migrants, while female migrants were primarily treated as dependents or part of family units<sup>142</sup>. Gender blind data collection has also been critiqued for assuming similar effects of phenomena being studied on males and females. It thus becomes more pertinent to produce synergies between feminist research and quantitative methods.

Methods have been developed as programme evaluation strategies in the context of development programmes, where it is likely that donors to development organisations will want to know whether funds are being utilised towards gender inclusive sustainable development objectives. In order to be equipped to provide this information, it has been necessary to develop gendered indicators to monitor the development work being carried out. For example, if poverty is being measured, gender-sensitive indicators would reflect differences in the impact of poverty on men and women, first by measuring the severity of poverty and the resulting effect on gender roles and responsibility. Indicators would also prove useful while measuring access to decision-making and assets, in order to show the difference between men's and women's experiences of poverty.<sup>143</sup>

<sup>&</sup>lt;sup>137</sup> J. Stacey, 'The Missing Revolution in Sociology', *Social Problems*, Vol. 32, No. 4, 1985, pp. 301-316

<sup>&</sup>lt;sup>138</sup> D. Crocker, 'Counting woman abuse: a cautionary tale of two surveys', *International Journal of Social Research Methodology*, Vol. 13, No. 3, 2010, p. 265–275

<sup>&</sup>lt;sup>139</sup> D. Crocker, ibid.

<sup>&</sup>lt;sup>140</sup> J. Williams, 'Doing feminist-demography', *International Journal of Social Research Methodology*, Routledge, Vol. 13, No. 3, 2010, pp. 197-210

<sup>141</sup> J. Williams, ibid.

<sup>&</sup>lt;sup>142</sup> M. Metso and N. Le Feuvre, *Quantitative Methods for Analysing Gender, Ethnicity and Migration*, Universite de Toulouse-Le Mirail, December 2006

<sup>&</sup>lt;sup>143</sup> G. Beetham and J. Demetriades, Feminist Research Methodologies and Development: Overview and Practical Application, Taylor & Francis, 2007

Several strategies have been suggested to create data collection instruments that are more responsive to feminist and gendered concerns. Williams suggests that gender should be used as a dependent variable in demographic surveys alongside such variables as race, class, sexuality, etc.<sup>144</sup> Cross-comparative analyses should be accompanied by appropriate justifications to do so, to mitigate the tendency towards acontextual knowledge production in quantitative methodology. Underlying assumptions in survey instruments can be tested using methods such as comparative factor analysis, or by involving communities in the process of designing or adapting instruments to ensure that data being collected is relevant to specific context.

Data collection could be geared towards allowing respondents to have greater control over the research agenda, by using context-appropriate language, open-ended questions, or using descriptive language. For instance, in a study on rape, researchers found greater response when asking if respondents had been forced to engage in sexual activity, rather than if they'd been raped<sup>145</sup>. Descriptive questions have also been theorised as potentially having similar effects to consciousness raising, as respondents recognise their experiences as being structural rather than individual instances of discrimination or violence<sup>146</sup>. Further, aspects of survey-based data collection have been characterised as being conducive to producing feminist research, such as the anonymity of response. Anonymity and replicability minimises the impact of biases which are more likely to creep into in-person social interactions<sup>147</sup>. Quantitative methods can also further feminist political goals through the explicit disclosure of methods of data collection and analysis, and allowing for inequality to be measured and then impactfully communicated to stakeholders outside academia.

#### Measuring intersectionality and eliminating bias

Drawing on theories of intersectional feminism, Harnois argues that measuring social phenomena on the basis of one variable, such as gender, centralises one form of gendered experiences while invisiblising others<sup>148</sup>. This can be at risk of effacing the experiences of those that undergo multiple marginalities - having several implications for the results of the research. For instance, respondents from minority communities may not perceive negative gendered experiences as disparate from those along other social axes, and might score lower on "single oppression frameworks", as opposed to respondents with a single marginal status<sup>149</sup>.

<sup>&</sup>lt;sup>144</sup> J. Williams, see footnote 140

<sup>&</sup>lt;sup>145</sup> L. Kelly, et al., 'Defending the Indefensible? Quantitative methods and feminist research', In Hilary Hinds et al. (eds.), *Working out: New Directions in Women's Studies*, Lewes: The Falmer Press, 1992, pp. 149-161

<sup>&</sup>lt;sup>146</sup> C. Harnois, 'Analytic Interventions of Multiracial Feminism', in *Feminist Measures in Survey Research*, SAGE Publishing, 2013

<sup>&</sup>lt;sup>147</sup> J. Kang, 'Fair Measures: A Behavioural Realist Revision of Affirmative Action, Vol. 94, No. 4, *California Law Review*, 1063, 2006

<sup>&</sup>lt;sup>148</sup> C. Harnois, footnote 146

<sup>&</sup>lt;sup>149</sup> E. A. Klonoff and H. Landrine, 'The schedule of sexist events: A measure of lifetime and recent sexist discrimination in women's lives', *Psychology of Women Quarterly*, Vol. 19, 1995, pp. 93–99.

As a result, gendered experiences of certain social groups might get essentialised at the expense of others. Disaggregating gender along other social categories through a multivariate model then helps in identifying multiple embedded structures of inequality. This can be supported by adding independent variables that are context dependent. Harnois, in her analysis of sexual harassment and gender discrimination, creates three regression models that study the two phenomena together and separately to achieve a nuanced understanding of interrelating variables<sup>150</sup>. Further, instruments that overrepresent certain socio-spatial contexts, such as work or educational spaces, over others could give more weight to one social group over others.

Privileging the experiences of one social group over others could also be a function of implicit biases that creep in at the stages of data collection and analysis. Kang<sup>151</sup> recommends a number of 'fair measures' that could be used to deal with such biases. One such measure is cloaking social category, which advocates for eliminating social categories such as gender and class from datasets when there might be potential for researcher biases to have harmful effects. This method should then only be applicable in areas where researcher biases cannot be otherwise addressed, since the risks of producing apolitical, gender-blind, and ahistorical results becomes manifold when overlooking social categories. Moreover, it might hinder the process of retrospective research into trends where gender is a factor.

#### Speculation and action in big data research

Representation in data wields symbolic power over embodied individuals, which has the potential to turn violent towards non-conforming bodies, as is the case with "security theatres" at airports that classify gender by scanning and detecting sexual organs<sup>152</sup>. Scholars working on the ethics of data bring into question the idea of raw data, with the assertion that "data should be cooked with care", since researchers and computer scientists bring assumptions that (re)shape the dataset at the time of processing<sup>153154</sup>. Data driven research in the ICT space in particular, has been inclined towards "reducing a complex social experience to its digital traces"<sup>155</sup>. The debate on feminism and data-driven research has largely taken one of two extremes, characterising the emergence of big data, particularly in ICT research, as either an opportunity to scale the study to the entire population while minimising cost, or abandoning big data entirely in the favour of small or thick data-based qualitative research<sup>156</sup>. Millette and Luka eschew both these approaches, with the assertion that researching big data through a feminist lens takes the political nature and construction of datasets as its starting point, which

<sup>&</sup>lt;sup>150</sup> C. Harnois, footnote 146

<sup>151</sup> J. Kang, footnote 147

<sup>&</sup>lt;sup>152</sup> P. Currah and T. Mulqueen, 'Securitizing Gender: Identity, Biometrics, and Transgender Bodies at the Airport', *Social Research*, Vol. 78, No. 2, 2011, pp. 557-582

<sup>&</sup>lt;sup>153</sup> G. C. Bowker, 'Memory practices in the sciences', *The MIT Press*, Cambridge, 2006

<sup>&</sup>lt;sup>154</sup> L. Gitelman, "Raw data" is an oxymoron', *The MIT Press*, Cambridge, 2013

<sup>&</sup>lt;sup>155</sup> M. E. Luka and M. Millette, '(Re)framing Big Data: Activating Situated Knowledges and a Feminist Ethics of Care in Social Media Research', *Social Media and Society*, Vol. 4, No. 2, 2018

<sup>&</sup>lt;sup>156</sup> M. E. Luka, and M. Millette, ibid.

goes against the understanding of datasets as value-free neutral collections of data points<sup>157</sup>.

They suggest 'speculation' as a form of action research, which entails exploring alternative possibilities and futures as a form of knowledge production, with the goal of actioning specific futures into reality<sup>158</sup>. This emerges out of the theoretical tradition of feminist materialism, centred around the idea of constructing alternative social relations. Greater sensitivity to limitations of current practices of knowledge production is a necessary component of imagining alternative futures, which then also coheres with the theory of partial and situated knowledges<sup>159</sup>. Practical application of this can be seen in Coding Right's initiative that reimagining a transfeminist future in which algorithms are no longer embedded in the 'matrix of domination'. Researchers could also then think through ways to involve participants as co-creators in process of knowledge production.

# **Conclusion**

This literature review contextualises contributions by feminist philosophers and researchers in a range of academic fields, coalescing theoretical concepts, ethical and political debates, and methodological concerns. Later feminist scholars have treated academic disciplines themselves as institutionalized colonial constructs, thereby advocating for a multidisciplinary approach<sup>160</sup>. Non-traditional and traditional sources of information, such as big data and oral histories, should be explored by future research concurrently to provide different entry points into a project. Sources of information need to be critically examined rather than treated as sacrosanct entities, since they have been produced within specific political contexts, and have both material and discursive effects that are "co-constitutive"<sup>161</sup>.

Feminist research treats each actor and process in knowledge production critically. The aim of producing this literature review is the lack of such criticality in a large section of research being produced in technological and policy research. It is the hope that this will catalyse the use of these and other feminist methods in exploring new perspectives and asking critical questions. It is also then necessary to align or integrate research projects with active interventions, using gender-disaggregated data and co-produced knowledge about lived experiences of marginalised identities to challenge dominant structures. This includes the global North-dominated, heteropatriarchal military-industrial complex within which most modern technology is discursively and materially placed.

<sup>&</sup>lt;sup>157</sup>A. Markham, 'Undermining 'data': A critical examination of a core term in scientific inquiry', *First Monday*, Vol. 18, No. 10, 2013

<sup>&</sup>lt;sup>158</sup>M. E. Luka and M. Millette, footnote 155

<sup>&</sup>lt;sup>159</sup> D. Haraway, footnote 27

<sup>&</sup>lt;sup>160</sup>A.Arondekar, 'Without a Trace: Sexuality and the Colonial Archive', *Journal of the History of Sexuality*, University of Texas Press, Vol. 14, No. ½, 2005, pp. 10-27

<sup>&</sup>lt;sup>161</sup>A. Arondekar, ibid.