

# Gender, War and Technology: Peace and Armed Conflict in the 21<sup>st</sup> Century

## Introduction

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Since the end of the last world war, the global order has witnessed tremendous change. Social, behavioural and economic changes have been shaped in large part by a post war ideology that presumed scalable inventions could make human life extend further, act faster, and work cheaper.<sup>4</sup> Technological developments have continued to shape the global order on multiple registers, including in the realm of armed conflict. With the evolution of proxy warfare during and after the Cold War (and the resulting war-weariness among the populations of the Great Powers), the capacity for states to exercise their influence, both remotely and diffusely, has been driving the global military research agenda. The second half of the twentieth century witnessed the emergence of the internet, the development of cybernetics/artificial intelligence, and the creation of new genetic and programmable materials as well as laser weaponry. This century such technologies have evolved to produce the likes of drones, the emerging category of lethal autonomous weapons or 'LAWs', and other military land-based autonomous and semi-autonomous robots.<sup>5</sup> All of these developments have occurred against the backdrop of a radically uneven global order, intensifying divisions between regions, states, peoples and groups, and entrenching existing inequalities, both transnationally and within states.

The transformation of armed conflict through such inventions has not only shaped targeting methods and the remoteness of warfare, among many other factors, but has also produced an apocalyptic vision of everyday surveillance warfare.<sup>6</sup> This has provoked sustained global debate, both in international law and international policy, ranging from technical questions regarding the applicability of existing legal frameworks to normative questions around the

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<sup>4</sup> Yoriko Otomo, *Unconditional Life: The Postwar International Law Settlement* (OUP 2016), 118.

<sup>5</sup> See for example the robots developed by the Japanese-owned, MIT spin-off company, Boston Dynamics: <https://www.bostondynamics.com/about> (accessed 21 February 2017). For an example of how military technology is envisioned, see the US Defense Department's 'Project Maven', which is developing an algorithmic form of warfare where '[p]eople and computers will work symbiotically to increase the ability of weapon systems to detect objects'. United States Department of Defense, *Project Maven to Deploy Computer Algorithms to War Zone by Year's End* (online) <https://www.defense.gov/News/Article/Article/1254719/project-maven-to-deploy-computer-algorithms-to-war-zone-by-years-end/> (accessed 18 February 2018).

<sup>6</sup> Drone warfare, for instance, has been shown to cause PTSD in both operators and those living in areas where drones are used to target 'combatants' due to both the sudden aerial method of attack, and the large numbers of 'collateral' civilian casualties involved: see for example the documentary *Living Beneath the Drones* (2015) (Afghanistan); the International Human Rights and Conflict Resolution Clinic, Stanford Law School and Global Justice Clinic, NYU School of Law, *Living Under Drones: Death, Injury and Trauma to Civilians from US Drone Practices in Pakistan* (2012) (online) [chrgi.org](http://chrgi.org) (accessed 21 February 2018), and Atef Abu Saif, *The Drone Eats with Me: A Gaza Diary* (Beacon Press: Boston 2016).

value of new means and methods of warfare.<sup>7</sup> In a telling example from late 2017, a UC Berkeley-based computer scientist and the Campaign to Stop Killer Robots advocacy organisation used a United Nations platform to screen a dystopian futuristic film, ‘Slaughterbots’, to call greater state attention to the perils of autonomous weapons systems while lobbying for an international treaty to ban their use.<sup>8</sup> The event illustrates how overlapping communities – academics, humanitarian activists and state representatives – turn to legal forms as sites of potential redress and regulation of technological developments in armed conflict that are seen to threaten human well-being. It also invites critical reflection: about the relation between the human and the non-human (or indeed post-human); the broader political economies of armed conflict in which such weapons may be used; the role of legal architectures in constraining – and at times enabling – the use of force and methods of warfare; and on what other forms of suffering remain hidden from view when spectacular forms of violence determine political agendas.

There is a pressing need for further examination of the interplay between these emerging inventions against existing international laws and the changing backdrop of contemporary armed conflict. The role of gender in their creation, production and deployment has been under-theorised to date: this special issue is an invitation to others to think with us.<sup>9</sup> Contributors to this issue undertake their analyses alongside, but not within, existing legal debates, which predominantly concern matters of procedure and classification. The articles here look outwards, at some of the more amorphous but no less important forces that shape law and war: the interplay between rhetoric, images, ideology, and affect.

What matters of concern appear within this constellation?<sup>10</sup> As the following articles illustrate, triangulating gender, war and technology as a field of inquiry produces a wide domain of analysis, with topics ranging from human enhancement technologies to autonomous weapons systems, surveillance and aerial bombardment, artificial intelligence and big data. The three terms themselves invite interpretation and debate.<sup>11</sup> The first term, ‘gender’, has been used in the context of international humanitarian law to signify vulnerability; women are treated as a group that may require further protection, where gender operates as a qualified identity that supplements the category of civilian (or indeed, comes to

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<sup>7</sup> See for example Steven J. Barela, *Legitimacy and Drones: Investigating the Legality, Morality and Efficacy of UCAVs* (Routledge 2015); Kevin Jon Heller, ‘One Hell of a Killing Machine: Signature Strikes and International Law’ (2013) 11 *International Criminal Justice* 89, and Louise Arimatsu and Mohbuba Coudhury, *The Legal Classification of Armed Conflicts in Syria, Yemen and Libya* (International Law, Chatham House, London 2014), 43.

<sup>8</sup> Stop Autonomous Weapons, *Slaughterbots* (online) 12 November 2017 < <https://www.youtube.com/watch?v=9CO6M2HsoIA> > (accessed 18 February 2018). See also Campaign to Stop Killer Robots, *2017: A Year Lost for Diplomacy* (online) < <https://www.stopkillerrobots.org/2017/12/lostyear/> > (accessed 18 February 2018).

<sup>9</sup> Other helpful texts on this topic include: Rosi Braidotti, ‘The Inhuman: Life Beyond Death’ in *The Posthuman* (Polity Press 2013) 105; Mary Manjikian, ‘Becoming Unmanned: The Gendering of Lethal Autonomous Warfare Technology’ (2014) 16(1) *International Feminist Journal of Politics* 48; Lauren Wilcox, ‘Drone warfare and the making of bodies out of place’ (2015) 3(1) *Critical Studies on Security* 127; Cara Daggett, ‘Drone Disorientations: How “Unmanned” Weapons Queer the Experience of Killing in War’ (2015) 17(3) *International Feminist Journal of Politics* 361.

<sup>10</sup> We refer here to Bruno Latour, ‘Why Has Critique Run out of Steam? From Matters of Fact to Matters of Concern’ (2004) 30 *Critical Inquiry* 225. Rather strikingly, Latour relies upon military metaphors and descriptions of armed conflict in seeking to diagnose the shortcomings of constructivism, arguing that rather than retreating to facticity, critical scholarship can focus on contextually situated ‘matters of concern’.

<sup>11</sup> There is extensive philosophical and critical legal debate around what constitutes technology, as well as the relationship between ideas of technology, to international law (see for example Yoriko Otomo, as above n 4), which is not the focus of the contributions in this issue.

define the category of civilian).<sup>12</sup> Yet some of the articles considered here adopt a more reflexive approach informed by feminist scholarship, considering issues of agency, difference, and intersectionality, and contesting gendered constructions that presuppose femininity, ethnicity, and passivity. The gendered subjects of law and war are at the same time subjects embedded within political economies of race, class, ability, age and other factors. While gender serves as the primary focus of many articles within this special issue, gender theory's commitment to intersectionality can be seen throughout, with articles considering issues of race, colonialism, ability, masculinity and capitalism (and thus, implicitly, class). Beyond this special issue, the field would benefit from analysis of the broader range of intersectional concerns that emerge from recent technological developments in warfare.

The second term, 'war', is understood though drawing on existing feminist and gender critiques of war and armed conflict. Our point of departure is Cockburn's well known 'continuum of violence', whereby war and peace are noted to be part of a shared continuum as opposed to distinct (legal) categories.<sup>13</sup> Such an outlook disrupts legal categorisations of conflicts by acknowledging that when a conflict ends as a matter of law, it has not necessarily ended for people living through it.<sup>14</sup> Not only do the place and time of 'armed' conflict then become *questions*, but presumptions about who produces, participates in, and is affected by conflict are also revisited and critiqued.

The final term, 'technology', has been defined within the context of conflict in the 21<sup>st</sup> century, following the post war ideological movement described above. We are aware of the vast amount of literature which seeks to define technology broadly, with Heidegger defining technology to include things such as art and law, roughly defining technology as a tool and theorising how it is technology which helps humans become human.<sup>15</sup> This special issue focuses on technology specifically within the context of 21<sup>st</sup> century armed conflict, such as military technologies and/or algorithmic decision-making and data collection. In light of the multiple ways in which technology is changing conflict, we argue that the focus on these technologies reflects the ways in which technology is impacting on and changing the global order and conflict. This special issue seeks to draw attention to the urgent need for gendered perspectives on the interrelationships between war and technology.

### Who or what is engaged in armed conflict?

Drawing on existing feminist and gender critiques of war and armed conflict, seeking to question the presumptions about who produces, participates in, and is affected by conflict,

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<sup>12</sup> See for example the description on the website of the International Committee of the Red Cross: 'women are also entitled to special protection, which takes into account their specific needs. For example, women prisoners must be housed separately from men. IHL further requires that expectant mothers and mothers of young children, in particular nursing mothers, be treated with particular care. This applies, for example, with regard to the provision of food, clothing, medical assistance, evacuation and transportation.' International Committee of the Red Cross, *Protection of Women in Situations of Armed Conflict* (online) 6 May 2013 <https://www.icrc.org/eng/resources/documents/field-newsletter/2013/india-e-newsletter/legal-opinion-05-2013.htm> (accessed 18 February 2018).

<sup>13</sup> Cynthia Cockburn, 'The Continuum of Violence: A Gender Perspective on War and Peace' in Wenona Giles and Jennifer Hyndman (eds) *Sites of Violence: Gender and Conflict Zones* (University of California Press 2004) 24.

<sup>14</sup> As above.

<sup>15</sup> Martin Heidegger, 'The Question Concerning Technology' in trans. William Lovitt, *The Question Concerning Technology and Other Essays*, (Garland, 1977).

this special issues seeks to expand narrow legal concepts of actors, participation, and chains of causality. Furthermore, by using feminist and gender critiques of subjectivity, the special issue interrogates definitions of both the human and nonhuman while also emphasising the links between the two in a posthuman world.

As Matilda Arvidsson writes in our first article, 'Targeting, Gender, and the International Posthumanitarian Law and Practice: Framing the Question of the Human in International Humanitarian Law', the producers and consumers of today's armed conflicts are 'always-already digital and material more-than-human: neither fully 'machine' nor fully 'human' and by necessity never autonomous nor free.' Arvidsson narrows in on one moment of the production of armed conflict – the killing of a live target. Reading transcripts from a drone attack in Uruzgan, Afghanistan in 2010 that resulted in a civilian massacre, she shows how contemporary practices of targeting rely on the 'digital identification' of a person, together with visual cues, to kill or to let live. Crucially, this is a deeply gendered mode and moment of production. Christiane Wilke's article, 'How International Law Learned to Love the Bomb: Civilians and the Regulation of Aerial Warfare in the 1920s', illustrates how historical efforts to regulate emerging methods and weapons of armed conflict are bound up with presumptions about which populations are worth protecting, a thoroughly racialised biopolitics bound up with a colonial framework. Kristin Sandvik's article, 'Technology, Dead Male Bodies and Feminist Recognition: Gendering ICT Harm Theory' considers how information communication technologies (ICTs), data collection and big data are used in both drone warfare as well as in the regulation of the human refugee consequences of conflict. She shows how the ways in which data collection and mediation are formed and used render male refugees and their lived experiences statistically invisible at the international level. Considering both the context of conflict as well as their impact on human lives, Sandvik's paper highlights the ways in which certain men are deemed *more* targetable or *less* worthy of saving by nature of their perceived hegemonic masculinity.

In her article 'War's Perpetuity: Disabled Bodies of War and the Exoskeleton of Equality', Gina Heathcote examines developments in exoskeleton technologies. She shows how they unsettle the assumed maleness of the combatant on the battlefield and notes the effect of their participation in armed conflict on narratives of gender, masculinity and debility more generally. Noting how exoskeletons are being posed by some commenters as the answer to gender equality on the battlefield, with these machines working to ensure that female soldiers can be "as strong as the men", Heathcote's article challenges the use of gender equality underlying such debates, highlighting how these technologies work very much within gendered and ableist norms, both being limited by and perpetuating them. Emily Jones's article 'A Posthuman-Xenofeminist Analysis of the Discourse on Autonomous Weapons Systems and Other Killing Machines' also considers *who* or *what* is participating in armed conflict, taking into account existing weapons systems such as the Samsung SGR-A1, artificial intelligence, drones and technology-assisted learning. She highlights the ways in which the machine and the human already interact and work together in multiple ways, questioning the discourses around autonomous weapons that seek to exceptionalise such systems. She argues that while current attempts at legal regulation distinguish between civil and military technologies, such a distinction becomes impossible if we consider the financial, political and labour structures that make each category of technology contingent upon the other. Helene Kazan's article, 'The Architecture of Slow, Structural and Spectacular Violence and the Poetic Testimony of War' straddles, on the one hand, a description of war's impact on human lives, and on the other, the human lived experience of war. Drawing on her own experience of living through conflict, she centres her discussion on the affective experience of both human and architectural structures in the context of Lebanon's civil war. Kazan, in

the mode of *écriture féminine*, describes how Lebanon and its inhabitants are material sensors of the ‘slow, structural and spectacular’ violence. Focusing on the question of *where* and *when* armed conflict takes/has taken place, she demonstrates how this is bound up with the question of *who* is affected by that conflict, and *how* that effect is expressed.

### What role does law play?

Finally, the invested role of law appears throughout this terrain. As a field that deals in classification and categorisation, it holds out the promise of permitting and prohibiting certain behaviours, drawing the line between the licit and the illicit across battlefields and populations. It promises to do this through international treaties banning certain methods and weapons of warfare, for example, and by crystallising the norms of acceptable conduct. Yet there are challenges to this ambition on multiple fronts: the field of international law not only notoriously suffers from problems with compliance, but also from the more fundamental issue that it enables violence whilst seeking to constrain it.<sup>16</sup> Critical scholars of international law experiencing a nostalgic desire for faith in legal forms might think of the opposition to the 2003 Iraq invasion that was based upon its illegality, when ‘all it would have taken to make the war legal was Security Council authorization’.<sup>17</sup>

Our research agenda concerning gender, war and technology regards law’s role from a standpoint of critical distance: as a vehicle for projecting strong state power and facilitating ‘proportionate’ violence grounded in ‘military necessity’, as well as a possible means of constraining warfare and providing redress. For example, Kazan suggests that war torts be created in international law to provide some accountability in the case of the use of autonomous weapons systems, at the same time arguing for a radical change to the way in which law thinks about evidence.<sup>18</sup> Arvidsson suggests that the binary-gendered notion of the ‘human’ in IHL (combatant/man, civilian/woman), as well as the privileging of the ‘human’ and human agency in IHL more generally, requires us to rethink the boundaries of accountability where violence is enacted in the course of armed conflict. Wilke illustrates how past legal formations that emerged in the colonial period continue to structure permissible violence in the present framework of international humanitarian law. In the praxis section, Clare Brown offers a practitioner’s account of the use of ICTs in conflict and peacebuilding situations, including messaging and data collection technologies, in her article ‘The Use of ICTs in Conflict and Peacebuilding: A Feminist Analysis’. Brown argues that in spite of the proliferation of new technological forms that are designed to respond to and document armed conflict, many of these ICTs have failed to incorporate the lived experiences of women, let alone feminist perspectives. Even if they were to incorporate feminist perspectives, however, tensions remain between the desire to use technology for change, as in feminist posthumanism and xenofeminism, and the recognition of its embeddedness within both militarism and capitalism.

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<sup>16</sup> As is the case with the field of international humanitarian law; see Eyal Weizman, *The Least of All Possible Evils: Humanitarian Violence from Arendt to Gaza* (London: Verso 2012). See also Sara Kendall, ‘Cartographies of the Present: “Contingent Sovereignty” and Territorial Integrity’ (2017) 47 *Netherlands Yearbook of International Law* 83.

<sup>17</sup> Matthew Craven et. al, ‘We are Teachers of International Law’ (2004) 17(2) *Leiden Journal of International Law* 363 at 373.

<sup>18</sup> For a critical analysis of how international law currently deals with non-standard evidence, see James Parker, *Acoustic Jurisprudence: Listening to the Trial of Simon Bikindi* (OUP 2015).

## An invitation

Each of the articles in this special issue engages with and contributes to feminist theory. Critical theories on posthumanism have emerged largely outside of legal scholarship, from disciplines such as philosophy, gender studies, critical theory, cultural studies, art theory and media studies, at times informed by feminist approaches.<sup>19</sup> The impact of posthumanism in legal scholarship has been relatively limited to date, exemplified by the very humanist way in which legal and political discourse is usually still framed.<sup>20</sup>

Arvidsson asks us to think about the ‘humans’ of international humanitarian law, arguing that they are first and foremost imagined as gendered entities. She shows that this is complicated by the scope and forms of certain technologies used in armed conflict, noting nonetheless how this frees us to question the presumed subjects of international law. Wilke adopts a historical approach, situating aerial warfare in a broader colonial history and arguing that civilian status was racially and spatially circumscribed. Heathcote draws out a tension in the application of posthuman theory to law. Showing the problematic ways in which science and technology strands of posthumanism are promoting exoskeletons as a solution for gender inequality, she argues for a critical, intersectional feminist posthuman discourse on exoskeleton technology to ensure that technological advancement and the posthuman subject are not merely used to recreate the same humanist, masculine order. Highlighting how feminist theory and feminist posthumanism in particular has generally taken an anti-militarism stance, Jones notes that the xenofeminist manifesto is silent on the topic of militarism, and argues for reclaiming anti-militarism for the xenofeminist project, illustrating how that approach can be useful for critiquing the uses of autonomous weapons systems. Sandvik brings a masculinity studies perspective to the use of data collection, drone technologies and big data, noting a lack of focus on the way in which such use impacts on men. Kazan draws on art theory and French feminism to create a way of talking about the lived experience of conflict which can be used to rethink traditional ideas of what constitutes lawful evidence. Brown adds a perspective from legal practice, arguing for greater inclusion of women and feminist approaches in understanding and applying these new technologies.

Animated by concerns about the relative shortage of scholarly feminist perspectives on technology and conflict, this special issue emerged out of an international workshop organised by Emily Jones in June 2016 at SOAS University of London that sought to address this gap. We hope this collection of texts will invite others to join our continuing discussions on gender, war and technology. There are many other perspectives we would like to engage on these intersecting topics, including critical animal studies, critical environmental studies, war and peace studies, critical political geography, and area studies, among others. We would like to thank the other SOAS workshop participants, whose collaborative discussions raised some of the questions addressed this special issue: Sabiha Allouche, Louise Arimatsu, Ursula Del Aguila, Biye Gao, Kate Grady, Gina Heathcote, Fleur Johns, Sheri Labenski, Bérénice Schramm and Chieu Wan Liu. Thanks are also due to all of the peer reviewers who dedicated considerable time and thought to providing excellent and detailed feedback, and to the Board of Editors at the Australian Feminist Law Journal for their guidance and support throughout.

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<sup>19</sup> Braidotti describes ‘three major strands in contemporary posthuman thought: the first comes from moral philosophy and develops a reactive form of the posthuman; the second, from science and technology studies, enforces an analytic form of the posthuman; and the third, from my own tradition of anti-humanist philosophies of subjectivity, proposes a critical post-humanism.’ Braidotti, as above n 9 at 38.

<sup>20</sup> This has been noted by Upendra Baxi. See; Upendra Baxi, *Human Rights in a Posthuman World* (Oxford University Press 2009). Posthumanist theory has, on the other hand, been taken up in the past decade by scholars working in law and critical animal studies: see for example Ed Mussawir and Yoriko Otomo, *Law and the Question of the Animal: A Critical Jurisprudence* (Routledge 2013).

