Fifth-generation warfare (5GW)

Description

Fifth-generation warfare (5GW) is warfare that is conducted primarily through non-kinetic military action, such as social engineering, misinformation, cyberattacks, along with emerging technologies such as artificial intelligence and fully autonomous systems. Fifth generation warfare has been described by Daniel Abbot as a war of "information and perception". There is no widely agreed upon definition of fifth-generation warfare, and it has been rejected by some scholars, including William S. Lind, who was one of the original theorists of fourth-generation warfare.

History

The term 'fifth-generation warfare' was first used in 2003 by Robert Steele. The following year, Lind criticised the concept, arguing that the fourth generation had yet to fully materialize.

In 2008, the term was used by Terry Terriff, who presented the 2003 ricin letters as a potential example, but stated that he was not entirely sure if it was a fifth-generation attack, claiming "we may not recognize it as it resolves around us. Or we might look at several alternative futures and see each as fifth generation." Terriff argued that while fifth-generation warfare allows "super-empowered individuals" to make political statements through terrorism, they lack the political power to actually have their demands met.

Characteristics

Alex P. Schmid said that fifth-generation warfare is typified by its "omnipresent battlefield", and the fact that people engaged in it do not necessarily use military force, instead employing a mixture of kinetic and non-kinetic force. In the 1999 book Unrestricted Warfare, by colonels Qiao Liang and Wang Xiangsui of the People's Liberation Army, they noted that in the years since the 1991 Gulf War, conventional military violence had decreased, which correlated to an increase in "political, economic, and technological violence", which they argued could be more devastating than a conventional war.[8] On the contrary, Thomas P. M. Barnett believes that the effectiveness of fifth-generational warfare is exaggerated, as terrorism conducted by individuals, such as Timothy McVeigh or Ted Kaczynski, lacks the support of more organized movements. This was seconded by George Michael, who noted that in the United States, gang violence was responsible for far more deaths than lone wolf terrorist attacks.

L.C. Rees described the nature of fifth generation warfare as difficult to define in itself, alluding to the third law of science fiction author Arthur C. Clarke – "any sufficiently advanced technology is indistinguishable from magic."

Source: en.wikipedia.org/wiki/Fifth-generation_warfare

"Truth has to be repeated constantly, because Error also is being preached all the time, and not just by a few, but by the multitude. In the Press and Encyclopaedias, in Schools and Universities, everywhere Error holds sway, feeling happy and comfortable in the knowledge of having Majority on its side." ~Johann Wolfgang von Goethe

Further References

Nadeem, M., Mustafa, G., & Kakar, A.. (2021). Fifth Generation Warfare and its Challenges to Pakistan . Pakistan Journal of International Affairs

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"This research paper aims to analyze fifth generation warfare and its challenges to pakistan. in modern era, wars are not declared or waged conventionally: instead it is instigated by clandestine agents using military, non-military, media, cyber tools, information operations, ngos, non-state actors, intelligence agencies, propaganda, economic tools, insurgency and terrorism. the adversaries have been waging fgw against pakistan for long. pakistan became nuclear power in 1998 and declaring conventional battle remains very hard for adversaries. hence, they are using tools of fifth generation warfare against pakistan to destabilize it internally and gain their nefarious designs. the enemies are behind conspiracies to destabilize pakistan internally and undermine its image in global community, sponsoring, financing and training terrorists to conduct covert operations within pakistan's territory. in present era of hybrid warfare, pakistan is facing threats to its national unity due to negative role of some foreign countries. at present, media campaigns against pakistan are at full swing. the enemies have been spreading propaganda, misleading reports, and false news to damage national unity of pakistan. they are trying to influence international institutions, particularly fatf to portray pakistan as terrorist sponsoring state. pakistan is being subjected to fifth generation warfare massively. this research paper highlights challenges of fgw pakistan is presently facing"

Krishnan, A.. (2022). Fifth Generation Warfare, Hybrid Warfare, and Gray Zone Conflict: A Comparison . Journal of Strategic Security

Plain numerical DOI: 10.5038/1944-0472.15.4.2013
DOI URL
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"Strategists have noted substantial changes in warfare since the end of the cold war. they have proposed several concepts and theories to account for the fact that the practice of war has largely departed from a clausewitzian understanding of war and the centrality of physical violence in it. emerging modes of conflict are less focused on the instrumental use of force to achieve political objectives and are more centered on notions of perception management, narratives, asymmetry or irregular conflict, the adversarial uses of norms, and covert and ambiguous uses of force. this article aims to systematically compare three more recent theories of war or political conflict, namely fifth generation warfare (5gw), hybrid warfare (hw), and gray zone conflict. the article demonstrates that although they have the same intellectual roots, they are also different in terms of what they suggest about the nature of contemporary and near future conflict. each of them can enrich our understanding of contemporary warfare, which will be the key to mastering these new modes of conflict short of (theater conventional) war."

QURESHI, W. A.. (2019). Fourth- and Fifth-Generation Warfare: Technology and Perceptions..

San Diego International Law Journal

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"The composition of warfare is changing. there is an increasing transformation in the traditional aspects of waging a war: conventional techniques of warfare are in decline and newer tactics and tools of warfare, such as information warfare, asymmetric warfare, media propaganda, and hybrid warfare, are filling the gap, blurring the lines between combatant and noncombatant, and between wartime and peacetime. the basic framework of modern warfare was elaborated by carl von clausewitz in his magnus opus on war. he defined modern warfare between states as 'a duel on larger scale,' and explained its purpose as 'a continuation of politics by other means,' with its core elements of 'rationality of the state, probability in military command, and rage of the population.' building on clausewitz's work, william s. lind distinguished between four generations of warfare since the peace of westphalia in 1648, each generation having its own way of fighting war. this article intends to explore lind's fourthgeneration warfare and daniel h. abbott's fifth-generation warfare. it provides different interpretations of fourth-generation warfare (4gw) by several scholars. first, it explains that 4gw is asymmetric warfare fought by nonstate actors and by nonstate cultural groups, where asymmetric warfare and shadow wars are waged by nonstate actors and mercenaries for the political interests of aggressive states. then, it provides additional interpretations of 4gw, which is often understood as fighting on a moral level employing light infantry. by contrast, other scholars believe that 4gw is fought with the tools of information and technology using cyberspace. afterwards, this article explores how to fight 4gw and how it is being fought. the article also investigates abbott's fifth-generation warfare, a war of perceptions, and explains how to fight 5gw and how it is being fought. furthermore, this article explains how technological progression is used as a tool of modern warfare. [abstract from author]"
Rehman, M. A.. (2022). Media and Fifth-generation Warfare: A Case Study of Indian Disinformation Campaign Against Balochistan. Journal of Mass Communication Department, Dept of …

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"In the post-truth era, media has emerged as a vital propaganda tool of fifth-generation warfare. balochistan being one of the most important geostrategic locations in the region …"
Patel, A.. (2019). Fifth-Generation Warfare and the Definitions of Peace. The Journal of Intelligence, Conflict, and Warfare

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"The intent of this paper is to argue that postmodern warfare and fifth-generation warfare impact traditional notions of peace and conflict and therefore, a transformative approach to the definition of peace is required. the main objectives of this paper are three-fold: the first is to contend that where traditional notions of peace include the absence of kinetic violence exclusively, fifth-generation warfare and postmodern warfare encompass several different forms of combat; the second objective is to argue that in fifth-generation warfare conflict is perceived as not only intrastate disagreements but conflict between cultural groups, taken across transnational borders. finally, considering the above

arguments, this paper concludes by suggesting that peacebuilding requires a need for peacebuilders to adopt a new definition of conflict and peace. additionally, they need to concern themselves with changing the 'belligerent and antagonistic attitudes that foster violent conflict at the grassroots level' (bellamy et al, 2010)."

Jahangir, J., & Bashir, N.. (2022). Fifth Generation and Hybrid Warfare: Response Strategy of Pakistan . Academic Journal of Social Sciences (AJSS)

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"The current study is designed to find out the nature and level of the fifth generation warfare in pakistan. pakistan is facing security challenges on account of terrorism and regional security. it is the time to understand the latest trends in the fifth generation warfare war and implications for pakistan. threats to pakistan's stability by the hostile countries and their proxies by using 5gw and its ramification needed to be deeply analyzed. the objectives of this study are the conception of the term, comparison between different generations of warfare, mechanisms and techniques used in it and implications on the security of pakistan and response strategies. qualitative research design was implemented with data collection from secondary sources. the findings of the study show that the concept of 5gw is very difficult to comprehend and define, yet it has been grasped differently. the all generations of warfare are basically on two major areas i.e. targeting certain type of ideology and developing modern technology and warfare equipment's. the study concluded that pakistan is currently facing higher level of fifth generation warfare from india mainly in four major domains i.e. conventional war, diplomatic challenges, misinformation and economic suppression. the findings of the current study are of prime importance for framing a constructive policy in order to counter the 5gw threats. by delineating key issues and challenges, this research presents some recommendation to improve the countering strategies regarding 5gw in the context of pakistan. "

Shabbir, T., Farooqui, Y., Waheed, S., … S. U.-I., & 2020, undefined. (2020). 'Open Data'Technology and Fifth Generation Warfare (A Pakistan Perspective). Researchgate.Net

Show/hide publication abstract

"Warfare's structure is evolving. the traditional facets of warfare are undergoing a transformation: conventional methods of warfare are dwindling, while newer strategies and technologies of warfare, such as intelligence warfare, asymmetric warfare, media propaganda, and hybrid warfare, are filling the void, blurring the distinctions between combatant and noncombatant, as well as between war and peacetime. carl von clausewitz established the fundamental structure of modern warfare in his magnum opus on battle. he described modern state warfare as 'a duel on a larger scale' and clarified its intent as 'a continuation of politics through other means,' with its core elements of 'state rationality, military command chance, and populist anger.' william s. lind, building on clausewitz's thesis, characterized four centuries of warfare after the peace of westphalia in 1648, each with its own style of warfare. lind's fourth-generation warfare and daniel h. abbott's fifth-generation warfare are the subjects of this article. it discusses various scholars' explanations of fourth-generation warfare (4gw). to begin, it defines 4gw as asymmetric warfare conducted by nonstate actors and nonstate culture groups, in which nonstate actors and mercenaries conduct asymmetric warfare and shadow wars in the strategic

interests of aggressive states. the article then discusses alternative meanings of 4gw, which is often interpreted as combat on a moral basis with light infantry. by comparison, some researchers claim that 4gw is waged through knowledge and technological resources deployed across cyberspace. following that, this article discusses how to combat 4gw and how it is currently being waged. additionally, the article examines abbott's fifth-generation warfare, a battle of expectations, and discusses how to combat 5gw and how it is now being waged. additionally, this article discusses how technical advancement is used as a weapon in modern warfare. lastly, this article explained how some of the tasks listed previously could be outsourced by the government of pakistan, introducing a new player in the ecosystem. there are lots of data points that could have a new perspective on the economy and massive public databases from towns, countries and government departments. the collection of data has been performed using qualitative and quantitative approaches. it is most likely that the using the principle of "access to open data could enable the government of pakistan to improve …"
Layton, P.. (2017). Fifth Generation Air Warfare Working Paper 43. Royal Australian Air Force Air Power Development Centre

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"There is now a great deal to the concept of fifth-generation air warfare. the term has come to encompass and combine several important ideas, in particular: network-centric thinking, the combat cloud operational construct, multi-domain battle and fusion warfare. fifth-generation air warfare is now a multifaceted concept with real underpinnings. this paper initially explores the ideas on which fifth-generation air warfare is based with the second chapter extending this to discuss some of the practical difficulties in actually implementing these enticing visions. chapter three looks at the application of fifth-generation air warfare to battle network and hybrid wars. together the two types of conflict illuminate some of the fundamental warfighting issues associated with fifth-generation air warfare. chapter four considers how china and russia approach fifth-generation air warfare. their particular strategic cultures and national requirements mean the two countries have adopted unique approaches to fifth-generation air warfare but in this there are insights potentially useful to others. the short conclusion then brings this complicated story together."
Layton, P.. (2018). Fifth-Generation Air Warfare. Australian Defence Force Journal

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"El vencedor en las guerras de 5a generación será aquél que sea capaz de ejecutar con mayor rapidez el ciclo ooda (observación, orientación, decisión y acción) de john boyd. la clave residirá en el proceso de orientación, en construir más rápidamente que el adversario una imagen precisa del campo de batalla (conciencia situacional). las guerras de 5a generación se basarán en una red que gestione la información, la detección, los efectos y el mando o decisión; en una arquitectura 'combat cloud' que mejore la conciencia situacional a través de una 'picture' distribuida, en la que la pérdida de un sistema no afecte catastróficamente a la misión, facilitando enganches a mayor distancia y poniendo a disposición de todas las plataformas las capacidades ofrecidas por el resto; en un concepto multidominio, en el que la sinergia provenga del empleo de diferentes capacidades en o desde distintos dominios, cuyo efecto sea mayor que la suma de los efectos que cada una de ellas produciría por separado, y en la fusión de un gran volumen de información, que permita tomar decisiones con mayor rapidez que el adversario, dentro de una estructura de 'mando centralizado, control distribuido y ejecución descentralizada'. donde los datos y la conectividad serán clave."
Tahir, I. A., & Afridi, M. K.. (2019). Fifth Generations Warfare (5GW)-The New Dimensions of Enemies Launched Warfare and Security Concern of Pakistan

. Global Regional Review

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"The advent of internet, its confluence with communication and information technology (c&it) has given an exponential rise to generate waves of hyper information thus providing an opportunity to the enemies to launch transitional level of fifth generation warfare (5gw) from various platforms. the present internet dominated age coupled with mediasine qua non usage of deceitful information, baffled news and fabricated themes launched through hostile think tanks and hostile intelligence agencies through their spoofing agents under cover of media imposters, media memes and scintillating campaigns with covert commercial clientele. such slanderers aim to undermine state capacity and capability to act and react during odds/under tense situations. the enemy hired slanderers, their tittle tale imposters propagate the sugar coated lethal contents to the masses especially the youth has many varying dimension and blatant angles corroborated into 5gw"
Barnett, D. K.. (2010). The Fallacies of Fourth and Fifth Generation Warfare. Small Wars Journal

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"In evaluating current warfighting trends (and reconciliatory attempts to understand said trends), it appears the conceptual model of fourth-generation warfare (4gw) (and, by extension, fifth-generation warfare (5gw)) has achieved a level of dominant preeminence to the point of doctrinal establishment. granted, there are frequent (and cogent) counterarguments against inherent 4gw precepts, but said arguments appear to face an almost uphill battle as 4gw/5gw concepts have permeated through the irregular warfighting spectrum, becoming established as " common knowledge. " as these terms have become commonplace, frequently spoken with self-assured absolution, it is rather troubling that these concepts of future warfare, intended to reveal (as proponents argue) the myopic stasis of " conventional " understanding, have themselves become a closed and limited paradigm. thus, the inherent problem with 4gw/5gw (and the difficulty in countering these concepts) is the nature of their own conventionality. one of the single greatest misconceptions of the theory of 4gw is the overly-simplistic reconciliation of the history of warfare into four, distinctly delineated (and linearly evaluated) categories (or five, as 5gw has conceptually developed), the first culminating just two centuries ago. 1 such a view provides only the most superficial of treatments regarding the history of warfare, any deep examination of which reveals those elements of each " generation " appear/disappear/reappear on the world stage as circumstances dictate. of course, the tools have changed and it appears that proponents of 4gw/5gw theory placed too much weight on the value of said tools (i.e. the tools dictate the concepts). while it is true that tools can augment concepts, those basic attributes of any discipline, the most " core " of concepts, don't change and arguably dictate the development and implementation of said tools. furthermore, a great deal of value is placed on the seeming modernity of 4gw's underlying theory, to include its conceptualization. as hammes states: " fourth generation warfare uses all available networks – political, economic, social, and military – to convince the enemy's political decision makers that their strategic goals are either unachievable or too costly for the perceived benefit…the only medium that can change a person's mind is information. therefore, information is the

key element of any 4gw strategy. " 2 however, any student of sun tzu can see these same ar…"
Layton Peter. (2018). Fifth-Generation Air Warfare. Australian Defence Force Journal

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"El vencedor en las guerras de 5a generación será aquél que sea capaz de ejecutar con mayor rapidez el ciclo ooda (observación, orientación, decisión y acción) de john boyd. la clave residirá en el proceso de orientación, en construir más rápidamente que el adversario una imagen precisa del campo de batalla (conciencia situacional). las guerras de 5a generación se basarán en una red que gestione la información, la detección, los efectos y el mando o decisión; en una arquitectura 'combat cloud' que mejore la conciencia situacional a través de una 'picture' distribuida, en la que la pérdida de un sistema no afecte catastróficamente a la misión, facilitando enganches a mayor distancia y poniendo a disposición de todas las plataformas las capacidades ofrecidas por el resto; en un concepto multidominio, en el que la sinergia provenga del empleo de diferentes capacidades en o desde distintos dominios, cuyo efecto sea mayor que la suma de los efectos que cada una de ellas produciría por separado, y en la fusión de un gran volumen de información, que permita tomar decisiones con mayor rapidez que el adversario, dentro de una estructura de 'mando centralizado, control distribuido y ejecución descentralizada'. donde los datos y la conectividad serán clave."
Vancouver, C.. (2018). Contemporary Conflict & The Fifth Generation of Warfare. The Journal of Intelligence, Conflict, and Warfare

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Turunen, A.. (2018). Alternative media ecosystem as a fifth-generation warfare supra-combination. In Intelligent Systems, Control and Automation: Science and Engineering

Plain numerical DOI: 10.1007/978-3-319-75307-2_7
DOI URL
directSciHub download

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"The evolution in information technology has created new cognitive and social platforms where the amount of interhuman interaction is increasingly present. the development of methods of war constantly follows the trends of society, and therefore, the military interaction in the information, cognitive, and social domains such as in the social media should logically increase. this essay will compare the recent findings on information warfare to the theoretical basis of the nature of contemporary warfare. the framework of the essay will be fifth-generation warfare theory, network warfare theory, and kate starbird's research on alternative news ecosystem. the argument of the essay is based on how the recent finding on the presence of alternative news ecosystem is compatible with the 5gw framework and hence opens the discussion for the security and military dimension of the alt-

news phenomenon."
Yun, M., & Kim, E.. (2022). Cyber Cognitive Warfare as an Emerging New War Domain and Its Strategies and Tactics. Korean Journal of Defense Analysis

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"Cognitive warfare has become the crucial war domain that determines the outcome of modern wars. joseph nye pointed out, 'in today's war, it is not whose army wins, but whose story wins,' emphasizing the importance of narratives to occupy human minds and hearts. this has been repeatedly observed in the 'war on terror' in afghanistan and iraq–syria and the russia–ukraine war in 2014 and 2022. the strategic importance of winning human cognition by the use of non-kinetic influence operation had been similarly emphasized in the propositions of fifth-generation warfare and gerasimov's suggestions. by recognizing the importance of cognitive warfare, this paper attempts to address the concept of cognitive warfare and suggest strategic and tactical principles for its practical operation and use. the concept of cognitive warfare is still ambiguous, blurring together with related concepts such as psychological warfare, information warfare, cyberwar, active measures, and reflexive control. besides, the substantial conceptual differences between the u.s.–west and russia have added more confusion. thus, some clarification to distinguish the concept of cognitive warfare from other related terms seems necessary. meanwhile, neither has there been any concrete proposition of how cognitive warfare works strategically and tactically. the literature and earlier reports only introduced various specific effects and techniques of cognitive operations. nevertheless, how these effects and techniques are strategically–tactically integrated and jointly applied for a cohesive cognitive military operation is yet to be proposed. this paper responds to two such issues of cognitive warfare. in future warfare, the weight of cognitive warfare is anticipated to increase further. hopefully, this paper will be a stepping stone to rouse interest in cognitive warfare and the development of its strategies and tactics."
Hammes, T. X.. (2007). Fourth Generation Warfare Evolves, Fifth Emerges. Military Review

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"While there is no generally agreed upon definition of 4gw, according to the definition i wrote in 2003, fourth generation warfare uses all available networks-political, economic, social, and military-to convince the enemy's political decision makers that their strategic goals are either unachievable or too costly for the perceived benefit. while the west was convening conferences to make promises about aid at some future time, hezbollah representatives hit the streets with cash money and physical assistance. while the chinese and vietnamese insurgencies were hierarchies that reflected both the social organizations of those societies and the dominant business and military organizations of the time, recent insurgencies have been networked coalitions of the willing.n8 it is essential to remember that not only will smallpox cause an exceptional number of deaths, but it will also shut down world trade until the epidemic is controlled or burns itself out."
CASIS. (2019). A Brief History of Social Movements in North America. The Journal of Intelligence, Conflict, and Warfare

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"The purpose of this analysis is to differentiate social movements. in this instance, we will be using the hippie/counterculture movements during the 1960s and 1970s in canada, and those that are occurring in the second decade of the twenty-first century. in particular, this analysis distinguishes right-wing extremist movements in 2016 from groups like the hippie movement and the black panther party movement. specific reference will be made to contrast the social movements of the twenty-first century that are non-political in nature but are identity-based, versus movements during the 60s and 70s that were political by design and intent. due to the non-political nature of twenty-first century violent transnational social movements, they might be characterized as fifth generation warfare, which we identify as identity-based social movements in violent conflict with other identity based social movements, this violence may be soft or hard. 'soft violence damages the fabric of relationships between communities as entrenches or highlights the superiority of one group over another without kinetic impact. soft violence is harmful activities to others which stops short of physical violence'. (kelshall, 2019) hard violence is then recognized as when soft violence tactics result in physical violence. insurgencies are groups that challenge and/or resist the authority of the state. there are different levels of insurgencies; and on the extreme end, there is the resistance of systemic authority." Kelshall, C. M.. (2022). Fifth Generation Warfare? Violent Transnational Social Movements as Security Disruptors

Liles, S.. (2007). Cyber warfare compared to fourth and fifth generation warfare as applied to the Internet. In International Symposium on Technology and Society, Proceedings

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"The aspects of societal wide warfare occurring utilizing the technologies of the internet for dissemination and recruitment by entities has been well studied. what has not been studied is the use of adversaries systems of communication, education, and entertainment to assess and gather intelligence. the utilization of the adversaries systems allows for real time knowledge of the adversaries intent and relativistic knowledge gathering from detailed information leakage of organizations. the use of colloquially known web 2.0 and web 3.0 technology tools such as massive multiplayer online role playing games, web forum and online communities, simulated first person environments all lead to real world issues in national conflict. the myriad uses of these tools create a gap in intelligence analysis and understanding of tertiary effects on society. © 2007 ieee."
Lee, S.-J., & Park, M.-H.. (2017). Fifth Generation Warfare (5GW) – Concept and Its Implication to Korea"s National Security –

. Korean Journal of Military Affairs

Category

1. General

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