

Need for a New Definition of War in Indian University Curriculum: A Content Analysis of International Relations Syllabi of Higher Education Institutions

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Information Space like any other space, if not filled with the right information is likely to get filled with the wrong one.

(Army War College, Mhow, IW Division Quote)

Abstract

The nature of War has undergone a change with the development of Fifth Generation Warfare (5GW). This impacts not only citizens but also necessitates research and study of this new type of war. Curriculum needs to be updated keeping in mind changing nature of conflicts that citizens and states are facing. Air, land, sea, and space which are existing dimensions of wars are now accompanied by Information Warfare. This type of warfare is the manipulation of information trusted by a target without the target's awareness so that the target will make decisions against their interest but in the interest of the one conducting Information Warfare. The academic syllabus of International Relations needs to be updated to incorporate 5GW. This study provides data based insights into the rationale for curriculum revision by identifying a research gap and also opens the way for future research.

Key words: Information Warfare, International Relations, Fifth Generation Warfare.

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Introduction

What is War? This key question in International Relations was answered by Carl von Clausewitz and he called it 'nothing but a duel on a larger scale,' (Clausewitz, 1989, pg 75). Why do states go to War? Clausewitz answered this question for eternity when he postulated that war was both a continuation of politics and policy by other means. The defining elements or rather an enduring idea of war was given by him as containing three core elements- primordial violence, the play of chance, and means to an end in policy (ibid). The study of war expanded with changing times and four generations of warfare were identified depending upon the way war was fought. (Lind, 2004). The study of war went ahead to Fifth-generation warfare (5GW) with the battle of perceptions creating a defining edge in the panorama of war. Information Warfare (IW) is a much talked about but little understood form of 5GW. It is associated with hybrid warfare, non-contact warfare, economic warfare; legal warfare can be found in most of the journals that talk about international relations and military concepts.

After air, land, sea, and space, the cognitive or information space is the fifth dimension of warfare. We came up with the IW doctrine as a result of the Kargil War. This doctrine has been revised and updated from time to time but we still have not fully understood the import of the subject - not only at the armed forces but also at the national level. On the other hand, our adversaries seem to have learned it quite well and they have used its various components including psychological warfare, propaganda, cyber warfare, and perception management tools to shape the information environment in their favour. Unlike conventional war where the action is primarily taken by governments and armies, the war of perceptions has to be fought by all citizens and everyone is thus a stakeholder. This

necessitates a study and revision of curriculum at undergraduate levels and upwards in all Higher Education Institutions (HEI's).

This study uses the content analysis method to analyse the undergraduate syllabi of five central universities to establish the presence/absence of 5GW and information warfare as essential components of any academic courses on International Relations and Global Politics in India. It can be expanded to a study of the same at post-graduate levels and research programs in HEI's in India.

Major Themes in Information Warfare

a. Defensive and Offensive Information Warfare

The reasons for the failure of the Northern Power Grid in India of January and July 2012, affected 7 States and approximately 630 Million (63 crores) are still unknown. Some do refer to the incidents as Chinese attacks but the truth will never be known. Arab Spring can be attributed to social media platform and closer home, the aftermath of Burhan Wani's death, that led to more than 150 people killed and the entire state of J&K being in a state of unrest for more than 6 months, all happened through Facebook. Terrorists all over the globe have used the power of social media to propagate their ideology, recruit people, raise funds and coordinate their actions. 9/11 will stay as one of the biggest intelligence failures wherein the US spy agencies could not decipher the communication tools being employed by Al Qaeda.

b. Forms of Information Warfare

Very little information is available about the two different forms of Information Warfare (IW). The general perception is that offensive capability holds the key to success in the information domain. However, it's just the reverse. In this form of war, the country with better defensive capability has better chances of winning. The notion of winning and losing too will have to be redefined. There is no

territory to be captured, no enemy soldiers required to be defeated, no physical assets to be destroyed. Thus, effectively countering the offensive measures by the adversary(ies) can be termed as a victory in the IW. This is a long-drawn battle and a continuous war that has no temporal or geographical boundaries, no timelines, no start or finish points, and certainly no clear winners. Even while you are reading this, the IW is on. It is the highest form of non-contact warfare wherein substantial damage can be caused in electronic, cyber, and cognitive domains.

80% of IW is Defensive. A nation, not only has to protect its Critical Information Infrastructure (CII), like the Communication Networks, Satellite Centres, Nuclear facilities, Stock Exchanges, Power Grids, and Air Traffic Systems, to name a few, but also guard the *Cognitive Space* (mind-space) of its entire population against adversaries offensive IW. The good news is that Defensive IW is simple and easy to implement. It starts with very routine processes as following the cybersecurity instructions and good social media practices. Awareness and adherence to simple Standard Operating Procedures (SOPs) hold to key to Defensive IW. There are systems in place but one must understand that it's a 24x7x365 kind of warfare. Offensive IW can be termed as an *act of Commission* whereas Defensive IW is generally an *act of Omission*. The fact that the future wars will be completely asymmetric, bigger nations will tend to be easy targets of smaller entities. Thus, the larger the number of physical and human assets, the more attention is to be paid to Defensive Aspects.

Offensive information warfare is a highly specialized form wherein expertise and offensive capability will be a secret till the very end. In the Hollywood blockbuster Die Hard 4 (2007, Starring Bruce Willis, Justin Long) a small bunch of Cybercriminals brings down the entire nation to its knees by launching coordinated cyber-attacks on the critical information infrastructure. The attacks can

be launched by a very small group of people from remote locations and even from moving vehicles. The internet has connected the entire world and there are hardly any boundaries between physical and cyber domains. With the advancement of technology and proliferation of interconnectivity coupled with new emerging fields like Artificial Intelligence (AI) and Machine Learning (ML), the problem is only going to get further complicated. In the movie Matrix (1999), machines take over the world, and humans are used as bio source of energy.

c. Nature of Offensive Information Warfare

The inbuilt deniability in Offensive Information Warfare holds the key to success. We often hear of Cyberattacks being launched on countries and organizations, however, no conclusive proof has ever been produced. Americans too, despite being the world leaders in Information warfare, could only accuse Russians of manipulating the Presidential elections. This is non-contact warfare where the casualties in the physical domain are minimal, however economic and psychological effects are long-term and can be devastating.

d. Misinformation

Information warfare is based on two key concepts Mis and dis-information. Misinformation occurs when a subject is unaware of the real content of a message which could be a policy or governmental action. Misinformation could be seen in the Iraq War and the belief in the general American public about the existence of Weapons of Mass Destruction in Iraq.

e. Disinformation

Disinformation is false information or the production and widespread distribution of fake news through troll armies on social media platforms. The Russian Internet Research Agency

that was in focus for manipulating the 2016 American presidential elections and other organized troll armies are said to have been involved in the creation of disinformation. Both misinformation and disinformation are tools of Information Warfare.

f. Whole Nation Approach

Defensive information Warfare requires the *whole nation approach*, which means that the entire nation's critical information infrastructure and population have to be protected. It's a cumbersome task and since the attacker's identity, strategy, tools, and modus operandi will always be hidden, one can never be sure. The defensive measures are as simple as protecting your devices with passwords, following the laid down instructions on cybersecurity, and maintaining good cyber hygiene. For a nation, the key lies in identifying the CII and taking measures to protect it. It needs a complete understanding of the subject by the political, academic, bureaucratic, and military fraternity. There are no physical, geographical, or temporal boundaries in Information Warfare. There is no start and finish point and certainly no timelines. IW is hybrid in nature and anything and everything is a potential target, including your mind. The good part is that defensive measures are cheap and can be implemented by just anyone. The bad part is that the enemy is always hidden, it's always on the prowl and the damage is not immediately visible.

g. Shaping the Space in Information Warfare

The current example of the Sars-Cov Virus not being allowed to be named Chinese Virus or Wuhan Virus is a result of shaping the information space. Similarly, Pakistan has been successful in playing the victim card despite being overtly and covertly involved with the production and export of various instruments of terror to the entire world. We are the direct victims of enemy-sponsored

violence but we have not been able to convince the global audiences about us being at the receiving end.

h. The War Over Mind- Space

The proliferation of the internet and social media has taken away the control over the narrative from the authorized (state) agencies and given it to anyone who understands its power. Terms like social media influencers, toolkits, issues going viral, etc have found a permanent place in urban lives. No one could imagine that major conflicts could be directed through mobile phones. Applications like Twitter, Facebook, Blogs, Podcasts, and Youtube have become highly potent weapons of Information Warfare wherein small players and non-state actors can pose a direct threat to established state agencies. Information warfare aims to bring the entire narrative into the grey zone. If we do not respond adequately to the adversary's IW, there would be a possibility that our troops and population may lose confidence in their capabilities and we may end up responding to the narrative generated and propagated by the adversary.

The high speed of data transmission, the flexibility of format, inherent anonymity, deniability, and low cost with little or no legal barriers have made information warfare and its tools very popular amongst the inimical forces, terror groups, and even organized armies. We saw the full use of the media part of information warfare in both the Gulf Wars, Kargil Conflict, and the Middle East (Middle West for us) and is evident in the ongoing low-intensity conflict in J&K, North East, and in the (so-called) Red Corridor.

i. Changing Role of the State

The state will have to re-define the legal and bureaucratic boundaries to ensure that labyrinth of procedures does not become a hindrance in fully exploiting the potential of information warfare. For the success of any conflict, be it surgical strikes in Balakot (Pakistan) or the *not-so-old* violent action in

Galwan (Ladakh, J&K), the information space has to be managed well. We have all the necessary tools and know-how, but we need political and military will as also flexibility in our operational doctrine to adapt to this new form of warfare. All agencies need to be in sync to build a coherent and long-term narrative. Good examples of shaping the information environment can be seen when the *Ayodhya* issue was resolved without any major (violent) fallout. Removal of Article 370 from J&K and bifurcation of the state into Union Territories had an inbuilt information management plan. The ongoing management of the Covid pandemic is a result of the shaping of the information environment by the government.

Business houses and political parties have successfully used data analytics to steer the outcome of the campaigns in their favour. Cricket as a sport has a massive information dimension that has subsumed all other sports. The narrative built by the US in favour of its operations the world over is careful shaping of the information space. However, the master positions of this warfare can be safely awarded to the Russians and the Chinese.

Despite having the best scientific know-how and innovative brainpower, we lag in this domain. The situation is not likely to improve unless we shed our bureaucratic, intelligence, political and military silos and understand the nature of this ever-changing form of warfare.

We are moving in the right direction, but the speed is much below the minimum acceptable level and poor understanding of the subject coupled with lack of will to act will not only give an undue advantage to the adversary in the ongoing and future conflicts but also may lead to massive physical damage too. *Stuxnet* of 2007 was the first known use of a cyber-weapon to cause physical damage. The problem with the information warfare tools is that, unlike the conventional weapons, their deterrence value lies in maintaining secrecy till the very last.

We are fast moving towards high-speed information highways and interconnectivity to the stage of IoT (internet of things). Very soon, almost everything will be a potential weapon and everything will be a potential target. The future wars will primarily be fought in the information space and anyone who masters it will be the winner.

The Curriculum of Undergraduate Courses in International Relations in HEI's in India

a. The Role of Curriculum in the Purpose of Higher Education

The role of undergraduate programmes in Universities was laid out in the National Education Policy 2020. The HEI's in India are mandated with creating socially and nationally conscious citizens who are educated in a milieu of the knowledge economy. These individuals are expected to study and develop skills in cutting-edge ways in whichever field of study they choose. Not only is the mode of learning that compliant with twenty-first-century frameworks but the overall thrust of these courses is towards participative nation-building which is a key institutional goal. This is to be done in a multidisciplinary framework. Within HEI's the role of the curriculum is to enable a clear definition of institutional goals. (Bok .D, 1974). Multi-disciplinarity and research orientation, as well as quality, are keywords in the HEI curriculum in India. (Sharma SC,2020). These goals of university education can only be fulfilled through an updated and nationally oriented syllabus that exposes the students to key global issues from the national perspective. Additionally, research orientation demands preparation for research that is currently relevant. This study has utilized the following framework for the content analysis of the syllabus of five central universities through convenience sampling. These central universities offer an undergraduate course in International Relations as a part of the Bachelor's degree in Political Science. The framework includes - temporal relevance, research orientation, relevance to national security with relation to War which is the broader theme being examined in this study.

b. Content Analysis of International Relations Syllabi in five Central Universities in India

Five Central universities picked through a convenience sample were – Delhi University, Jamia Milia Islamia, Banaras Hindu University, the Central University of Andhra Pradesh, and Indira Gandhi National Open University. The analysis shows that the concept of War is not included in the curriculum at all. Where it is included the units are structured around the two world wars as well as the cold war and later developments after the disintegration of the USSR. Contemporary conflicts are not included in the curriculum either conceptually or empirically. 5GW is not mentioned or covered in any aspect of the curriculum. Table 1 represents the results.

Table 1: Content Map of some Central University Syllabi in International Relations w.r.t War

University →	Delhi University	Jamia Milia Islamia	Banaras Hindu University	Central University of Andhra Pradesh	Indira Gandhi National Open University
↓ Concepts related to Information Warfare					
Basic Structure	Two papers, one on Perspectives in International Relations and one on Global Politics	One paper on Basic concepts in International Relations and one on International Organisations	Two papers on International Relations	Optional Paper on International Relations	The course has a paper Perspectives on International Relations and World History with 4 blocks and fifteen units
War as a Theme	Cold war and post-cold war, first and second world wars	Not present even as Cold war	Not present as a broad theme but only concerning the Cold war	Only as Cold war and post cold war themes	War has themes on Cold War and the first and second world wars

University →	Delhi University	Jamia Milia Islamia	Banaras Hindu University	Central University of Andhra Pradesh	Indira Gandhi National Open University
Concepts related to Information Warfare ↓					
Generations of Warfare	Absent	Absent	Absent	Absent	Absent
Fifth Generation Warfare	Absent	Absent	Absent	Absent	Absent
Information Warfare	Absent	Absent	Absent	Absent	Absent

Sources: Delhi University Syllabus for BA Hons Political Science from http://du.ac.in/uploads/RevisedSyllabi1/080920_Political%20Science%20BA%20Hons%20Semester%20III%20July%202020.pdf

Jamia Milia Islamia Syllabus for BA Hons Political Science from https://www.jmi.ac.in/upload/admission/cs_fss_ps_ba_hons_political_science_2019.pdf

Banaras Hindu University Syllabus for BA Hons Political Science from https://www.bhu.ac.in/social_sciences/political_science/syllabus/BASemesterSyllabu.pdf

Central University of Andhra Pradesh Syllabus for BA Hons Political Science from <https://cuap.ac.in/assets/docs/BA-Hons-Political-Science-syllabus.pdf>

Indira Gandhi National Open University BA Hons Political Science Syllabus from <http://www.ignou.ac.in/upload/programme/PROG%20GUIDE%20POL%20SCIENCE%20HON.pdf>

Conclusion

A small convenience sample was juxtaposed against a review of literature on Information Warfare which is a subset of 5GW. Content analysis of the syllabus was done on the broad themes that emerged from the review of the literature. The following conclusions could be derived:

- a. The syllabi of the examined universities in the sample are oriented to the framework of syllabi provided by the University Grants Commission. Since this does not contain any mention of 5GW neither do the syllabi of the universities examined.

- b. The Syllabi examined had no coverage of the generation of warfare being lived and experienced by the nation and globally.
- c. Since undergraduate syllabi are now mandated to be oriented to community needs, global relevance, and research orientation as per the National Education Policy 2020, the gap identified in this study i.e. lack inclusion of War and 5GW needs to be in the cognitive space of educationists and policy-makers.
- d. The National education policy 2020 is aimed at inclusivity and community orientation. IW in its various dimensions affects the most vulnerable sections of Indian society. Women, children are susceptible to fraud and subversion. Thus any future curriculum change may be aimed at integrating curriculum on IW from class eight upwards to university levels.
- e. Specialists are required in IW and university curriculum should be redrafted and changed accordingly.
- f. IW can be envisioned as a specialisation in Political Science curriculum and eventually be developed into a separate discipline.

The awareness of national interest and information warfare has to start from grass root level to the very top. It has to be simultaneous and not sequential. We are a big and self-reliant nation with a mind-boggling diversity in human resources. We have languages and cultures, religions and faith and ideologies more than the rest of the world combined. We have glaring vulnerabilities and a huge task ahead of us. Its time to include this important domain in the school and university syllabi based on further inputs and larger studies of the kind that this paper has tried to initiate.

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