Future Conflict, Information Overload and the Rise of Generation C

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Technology has enabled interconnection of participants and the distribution of sensors on the battlefield at a reliability, continuity and data transfer rate never before imagined. When integrated with precision long range weapon systems, the lethality which can be achieved at the point of decision has given rise to the concept of network-centric warfare (NCW). Future conflict is moving towards this end, as witnessed by the conflicts in Iraq and, more recently, in Afghanistan and Libya. As per David A. Fastabend,[1] "The network simply alters the character of warfare but does not change its fundamental nature. Direct and Indirect engagements will continue to exist but the network will enable collaborative engagements in which the sensor is not always identical to the shooter. Mass is still useful, but it can leverage far greater precision. Because sensors can be linked to distant shooters, entire systems can be used to eliminate platforms rather than symmetric platform-on-platform engagements. The network is additive and not supplantive and does not substitute for the fundamentals of warfare."

The additive advantages of networks are, however, significant. While warfare is progressing towards net-centricity, in the Indian context, the linearity of the land battle with respect to conflict on the borders with Pakistan and China will remain a reality though the battlespace will get extended in depth. Information warfare (IW), especially with respect to cyber attacks, will, however, transcend the linear space and assume an all encompassing character. In the context of

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sub-conventional conflict, the zone of conflict will remain non-linear and will cover the entire affected population at large.

Information Overload

In his book, *War and Peace in the Twenty-irst Century,* Thomas PM Barnett observes that the future is not so much about dealing with the biggest threat in the environment but dealing with the environment of threats. The latter gives rise to the view that survival of the agile will be a key feature of future conflict and will largely depend both on the quality of decision-making as well as the speed at which decisions are taken. In this process, societies which are knowledge driven will have the edge as power will shift to knowledge-based real-time actors. As we move towards self-synchronisation of forces, we may

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well be looking at a future in which decision-making and action will take place at electronic speed. 'War at the speed of thought', is no longer outside the realm of what is possible though its actualisation is still far from the horizon. The future, however, is approaching us at a pace which is much faster than that at which history is being left behind and the web of information is leading to greater complexities in a flattening world. We are already in an era of 'information overload'. The continuous availability of real-time information comes with its own sets of dilemmas. Analysis capability is not endless and will increasingly be put under severe strain. The desire to have maximum inputs for decision-making is a tempting proposition but will have to be tempered with the necessity of giving a decision in time. As time pressures become more acute, we may well end up with 'information decoherence'.

Allied with 'information overload' is the problem of 'attention fragmentation'. Military leaders, like leaders in all walks of life, need uninterrupted time to synthesise information from many different sources, reflect on its implications, apply judgment, and arrive at good decisions. Decision-making is not restricted to conflict situations only but covers the entire gamut of peace-time activities: logistics, training, administration, financial management, execution of works, maintenance, etc.

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The ills of Multi-tasking

In *The Effective Executive*[2], Peter Drucker lays emphasis on the importance of reserving chunks of time for reflection, and the difficulty of doing so as *"most of the tasks of the executive require, for minimum effectiveness, a fairly large quantum of time."* While Drucker's book was written for the business executive, the challenges apply equally to military leaders who appear to be continually caught up in a never-ending series of conferences, meetings, travel, and social engagements. Concurrently, they also have to address a seemingly endless array of paperwork on a variety of subjects, be on the top of each and every activity and also attend to numerous telephone calls without let up. When senior commanders are perpetually caught in time pressures, they tend to multi-task in a vain effort to keep pace with the information flowing towards them. In the process, pressure on the staff gets accentuated, with most of their energy getting focussed on keeping the commander updated at the cost of other work. Ultimately, the work efficiency and output of the organisation is adversely impacted.

While multi-tasking by senior commanders is regressive, they still need to remain connected to their commands. The solution lies in better time management and in delegation. Addressing information overload requires enormous self-discipline. Commanders and staff alike must put in great effort each day to keep themselves on track by finding time to focus, filtering out the unimportant and, at the risk of sacrilege, they need to forget about work every now and then.

As commanders set the tone for their commands, they have a duty to set a better example. The widespread availability of powerful communications technologies means subordinates now share many of the time—and attention—management challenges of their leaders. Resetting the culture to healthier norms, thus, becomes a critical new responsibility.

A common though fallacious belief is that doing several things at the same time leads to better handling of the information flow and gets more work done. What's more, multi-tasking—interrupting one task with another—can sometimes be fun. Doing lower end jobs which could be better handled by a subordinate provides a welcome distraction from more

difficult and challenging tasks and gives a feeling of accomplishment. It also enables commanders to rationalise why critical issues remain undone.[3] Though multi-tasking enables speedy disposal of some of the simpler items on the to-do lists, it rarely helps commanders in the clearance of the more complicated problems they are faced with. More often than not, it's procrastination in disguise. One might think that constant exposure to new information makes a person more creative. Here again, the opposite seems to be true. Research has shown that the likelihood of creative thinking is higher when people focus

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on one activity for a significant part of the day and collaborate with just one other person. Conversely, when people have highly fragmented days— with many activities, meetings, and discussions in groups—their creative thinking decreases significantly. The root of the problem is that our brain is best designed to focus on one task at a time. When we switch between tasks, especially complex ones, we become startlingly less efficient. The reason is that creative problem solving typically requires us to hold several thoughts at once in memory, so we can sense connections we hadn't seen previously and forge new ideas. When we bounce around quickly from thought to thought, we're less likely to make those crucial connections[4].

Dealing with Information Overload

So, if multi-tasking isn't the answer, what is? Drucker suggests a combination of focussing, filtering, and forgetting. Though Drucker wrote over four decades ago when information overload was not a serious buzzword, these ideas still have relevance and need to be enmeshed with self-discipline and creating a new work culture in the organisation. A start could be made in doing away with most of the briefings, conferences and meetings which too many commanders habitually indulge in, wasting precious time—their own as also that of subordinate commanders and staff. Mindless indulgence in briefings, conferences and meetings is an indication of a lack of clarity in a commander's mind, indecisiveness, and also reflects an inability to grapple with issues that really matter. We also need to give up the fiction that leaders need to be on top of everything,

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which has taken hold as information of all types has become more readily and continuously accessible. As an example, an incident takes place in the Kashmir Valley and is promptly streamed on the ticker of various news channels. Before the local commanders have had an opportunity to assess the situation, queries are being received from Army Headquarters (HQ) asking for further information on the subject. Such an attitude erodes the credibility of the senior leadership and wastes valuable time in answering fruitless queries. Many examples of similar nature abound where commanders wish to be in the know of everything lest they be caught on the wrong foot on some issue or the other. More important concerns, thus, get relegated to immediate issues of lesser import.

Delegation needs to be taken up as the new buzzword in the armed forces. While delegation is often talked of, its practice is more in the breach. From the senior leadership to the subaltern, this aspect, hence, needs to be ruthlessly reinforced. At higher levels of responsibility, commanders and staff need to focus on upper end issues and leave routine and mundane issues to subordinates. As an example, issue of clothing to troops is a routine affair and is a function of the staff at unit level. However, addressing flaws in the distribution flow from the factory to the user is a function of the higher leadership and more difficult to accomplish. And if the production facilities themselves need to be addressed (in this example, the ordnance factories producing the concerned items), then it devolves on the highest leadership to take up the matter with the Ministry of Defence and the central government. The difficulty of the last course is indeed immense but that is what leadership is all about. Each level of command must focus on issues at its respective level and not dumb down. The latter course provides a healing balm to a commander's mind but achieves precious little otherwise. It also distracts from the thorny, unpleasant, and high-stakes problems where he is most needed.

Leaders also need to sit back, introspect and think. Setting up a schedule where this aspect is enabled will lead to greater focus on the more important issues at hand and also in dealing with long-term issues.

Cultivating reading habits while young in service also pays rich dividends during the course of one's career in terms of a wider knowledge base which can throw up alternate courses of action for consideration. It bears repeating that giving our brains downtime to process new intellectual input is a critical element of learning and thinking creatively. This does not imply that commanders should be aloof which could lead to their losing touch with their command. It simply implies better time management and educating subordinates and staff about what deserves to fill their limited time. For higher headquarters, it also implies not inundating subordinate units and formations with frivolous tasks and queries. In essence, it implies an improved and efficient work culture.[5]

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As the technological capacity for the transmission and storage of information continues to expand and quicken, the cognitive pressures on us will only increase. We are at risk of moving toward an ever less thoughtful and creative professional reality unless we stop now to redesign our working norms. The benefits of lightening the burden of information overload—in productivity, creativity, morale, and command effectiveness—will more than justify the effort. And the more we appreciate the benefits, the easier it will be to make new habits stick.

The Rise of Generation C

Dealing with Generation C is another challenge which the contemporary and future leadership will face.[6] This is the generation which is connected, communicating, content-centric, computerised, community oriented, always clicking – hence, the name. In India, this is the generation which was born after 1990 and for the most part comes from an urban or suburban background. It is from this base that the future leadership of India's armed forces will be drawn. This generation has grown up with the internet and mobile communications and is very familiar with technology. It will, thus, have an enormous impact on the way the armed forces function, as within a decade, it will form the core of its junior and middle level leadership.

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As we move towards greater digitisation in the force, the increasing numbers of Generation C in leadership roles will start playing a more dominant role in military affairs. One of the effects will be the way information is transmitted and consumed. The linear set-ups, which are an essential ingredient of hierarchical systems, will no longer be the only means of getting information. They will get more and more diffused as non-linear information flows increase. The inherent danger here will be that much of this information may be neither verified nor analysed – but may still be accepted at face value. Increase in transparency levels will also lead to a different set of security concerns which will need to be understood and addressed.

Besides concerns of security, we will increasingly witness a generation gap in the way this set of Generation C leaders function in relation to the rest. While the upper age limit of the digitally literate older generation will rise, they will remain far behind the junior and middle rung leadership dominated by Generation C in their digital behaviour and in terms of their ability to absorb, assimilate and employ technological tools.

The proliferation and increasing sophistication of communication, interaction and collaborative technologies and tools could perhaps lead to redefining the way the armed forces operate. The capability of Generation C to use technology must be exploited to change many of the antiquated ways in which the armed forces currently function. If the senior leadership has the wisdom to exploit this talent, it could well lead to a revolution in the way the armed forces are currently administered. The entire logistics management could be overhauled, leading to greater efficiency, real-time availability of material, decrease in manpower requirements, reduced costs and, more importantly, a reduced logistic footprint in all types of conflict situations. We could be witness to changes in health care systems within the Services which are more interactive and consumer friendly. A future scenario is one where officers and men (guided by their unit officers) will be able to perform their own research and write reviews of physicians, hospitals and drugs. Technology is an enabler for electronic diagnosis which will put various specialists both within the armed forces and if required from other government or private hospital within the reach of troops deployed

in any part of the country. And all this can be achieved without increase in costs, delivering effective health care on a scale which is currently unimaginable.

Systems would have to be reworked, especially financial rules and regulations as increase in transparency levels could potentially lead to massive cost reductions in items purchased for the force. Current procedures in which financial advisers from the Indian Revenue Service are dominant players but remain unaccountable for the decisions they endorse will have to give way to alternate models where decisions can be taken in compressed time-frames, with total transparency. On the operational front, Generation C is already wired for taking on the requirements of NCW and needs only a guiding hand to propel it in the right direction. We are indeed living in exciting times. The future holds great promise for the Indian armed forces – the current Generation C. But a great deal of maturity and understanding would be required to let Generation C fulfill the role which its upbringing and circumstance have fortuitously given.

Notes

1. Talk delivered by David A Fastabend on "Military Transformation Including Net-Centric Warfare" at an international seminar hosted by the Centre For Land Warfare Studies in November 2009 at New Delhi. The full address is available in a book published by CLAWS, *Future Wars: Changing Nature of Conflict* (New Delhi: Matrix Publishers, 2011), ISBN: 978-81-910142-5-9.

2. Peter Drucker, *The Effective Executive* (Oxford, UK: Butterworth-Heinemann, 1967), pp. 28-29.

3. This aspect has been analysed by Derek Dean and Caroline Webb in their article, "Recovering from Information Overload", *McKinsey Quarterly*, January 2011. The ideas in this paragraph have been taken from this article.

4. A detailed analysis of the above is given in Ibid.

5. Ibid.

6. Roman Friedrich, Michael Peterson, and Alex Koster, "The Rise of Generation C," *Strategy + Business*, Issue 62, Spring 2011. The analysis of Generation C used here has been adapted from the data provided in the above article.