1/2019

# LEADERSHIP AND ETHICS PAPERS

Jamie Cullens Defence Leadership and Ethics Essay Competition

Prize Winning Submissions - 2018

CDLE – Centre for Defence Leadership and Ethics
Australian Defence College

# AUSTRALIAN DEFENCE COLLEGE
# CENTRE FOR DEFENCE LEADERSHIP AND ETHICS

The Centre for Defence Leadership Studies was established at the Australian Defence College (ADC) at the Weston Creek campus in January 2002. It moved to the UNSW@ADFA campus in May 2009 and was renamed the Centre for Defence Leadership and Ethics (CDLE) in June 2009 to reflect the increasing focus on ethics education in the ADF. The team joined the Centre for Defence and Strategic Studies (CDSS) in September 2011 and subsequently moved back to the ADC site in September 2013. In 2018, CDLE became a Centre of Excellence within ADC Headquarters, demonstrating the importance of leadership and ethics education in the Australian Defence Force (ADF).

The role of CDLE is to provide the ADC with command, leadership and military ethics development advice in order to help shape expertise in these areas in the ADC learning centres and across Defence in general.

***LEAD, SHAPE, ENGAGE***



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# Foreword

The annual Jamie Cullens Defence Leadership and Ethics Essay Competition (JCEC) was established in 2018 to promote discussion of ethical leadership. It is open to all Australian Defence Force (ADF) personnel and Defence public servants and provides an opportunity to consider issues of leadership and ethics and how they affect Defence. It has been established to encourage critical thinking and discussion on contemporary leadership and ethics as well as future ethical issues facing the profession of arms.

The JCEC comprises four categories:

a. Category 1: ADF members (E-1 to E-6)

b. Category 2: ADF members (E-7 to E-8 and O-1 to O-4)

c. Category 3: APS levels 1-6, and

d. Category 4: Senior Defence members (E-9 to E-10, O-5/EL1 and above).

## Jamie Cullens

The essay competition is named after Mr Jamie Cullens. Jamie was the founding Director of the Centre for Defence Leadership and Ethics (CDLE). He served for 19 years as an infantry soldier and has commanded at platoon, company and regimental level. He saw operational service in Kashmir with the UN and in Panama with US forces. He was appointed as the first Director of the Centre for Defence Leadership Studies in 2002, supporting command, leadership, management and military ethics program development at the Australian Defence College and across the Australian Defence Force. He served in this role for over a decade and is known across Defence as a champion for the education and training of ADF and APS members in military ethics and leadership.

# Jamie Cullens Leadership and Ethics Essay Competition 2018

# Prize Winning Essays

# Jamie Cullens Leadership and Ethics Essay Competition 2018

## OVERALL BEST ESSAY

# Enhancing ethical behaviour through maximising team productivity in the Australian Defence Force: Reasons why personnel withhold effort and strategies to overcome it

**Author: Squadron Leader Alison Spark**

This essay will explore the impact that an individual's ethics can have on team productivity and how leaders can manage these individuals. This essay will be separated into 3 sections- The problem, the analysis and the resolution. The problem section will define the issue of personnel who demonstrate poor ethics through exhibiting the Propensity to Withhold Effort (PWE) and will use the Australian Defence Force (ADF) environment to contextualise this problem. The analysis section will discuss theories behind PWE, offer reasons why personnel exhibit PWE and argue that personnel who exhibit PWE can negatively impact on the productivity of their team and in turn, the organisation. The resolution section will suggest strategies that leaders can use to resolve the issue of PWE in teams, thus improving the demonstrated ethics of the individual.

## The problem

The Oxford Dictionary defines ethics as the "principles that govern a person's behaviour". Therefore, how a person behaves is guided by his or her principles, or ethics. The Chief of the Royal Australian Navy, emphasised the importance of ethical behavior to defend Australia "[it is] crucial that we are ethically dependable." (Department of Defence, 2010, pp 5). The ADF defines its ethics through its values. The Australian Army makes this connection clear "Army's cultural and ethical foundation is its values" (Department of Defence, 2018a). The ADF, as well as individual Services, have defined values (Department of Defence, 2006, 2018a, 2018b, 2018c) which include professionalism, integrity and teamwork. The Chief Air Force (CAF) stated

that he "expects everyone to demonstrate the Air Force values at all times" (Department of Defence, 2018b). Therefore, the ADF highly regards their values. By each ADF member striving to achieve and 'live' these values, it ensures the ADF as a whole, is achieving to the highest ethical standards.

The 2016 Defence White Paper (Department of Defence, 2016) and Air Force Strategic Plan 2017-2027 (Department of Defence, 2017a) outlined the need for a seamless integrated force. Additionally, the ADF's 'Pathway to Change' (Department of Defence, 2017b) aims to lead and develop integrated teams. To meet this need and aim, the ADF is building interoperability between Army, Navy, Air Force, government departments, contractors and foreign allied forces, in order to meet shared or common goals. Now more than ever, team work has become vital to the ADF's mission. With an increase in the emphasis on team work, there is an increased possibility of personnel who function below their capacity, unnoticed within these teams. These are personnel who withhold effort, which conflicts with the ADF and Service values.

Individuals who withhold effort can affect the performance of other individuals within the team (O'Connor, 2006), lower team productivity (Latane, Williams & Harkins, 1979) and consequently lower the performance of the organisation (Bettenhausen, 1991).

PWE is described by Kidwell & Bennett (1993) as the likelihood that personnel will perform less work than other team members when they are working together on a task in a team. This is problematic because the common goals of the team are not met efficiently and effectively, as a result of either process loss or an individual's conscious decision to withhold effort.

## Analysis

PWE can exist in two forms - 'social loafing' (Meyer, Schermuly & Kauffeld, 2016) and 'free riding' (Albanese & Van Fleet, 1985). Both forms result in lower team productivity, however,

one is a process loss and the other is a conscious decision, thus, leaders would benefit from distinguishing between the two when implementing strategies to overcome the problem.

Social loafing is defined by Meyer et al. (2016) as a process loss whereby individuals who work in a team expend less effort than when they are working individually. Social loafing occurs when individual ideas and skills overlap or coordination losses result in a lower average individual contribution to the team, resulting in lower team productivity.

Free riding describes an individual's conscious decision to withhold effort. Albanese et al. explain that free riding is related to the effort exerted by the individuals within the team, whereby individuals reduce their effort because they believe that they can still obtain the same reward with less effort, due to diminished accountability (Duncan, 1994; Kidwell & Robie, 2003; Jones, 1984). Free riding also results in lower team productivity.

This analysis will look at the impacts of PWE at three levels- the individuals, the team and the organisation. The individuals comprise all those within the team, including the member withholding effort and the team leader. The team is the work team, such as an ADF unit, squadron, ship or section. The organisation is the company to which the team belongs- the ADF.

PWE can impact on individual team members in a number of ways, such as decreasing intra-team cooperation, negatively affecting individual team member motivation, decreasing the social acceptance of the member withholding effort, producing an in-group and an out-group and increasing the likelihood of the sucker effect.

De Cremer (2002) studied the importance of intra-team cooperation and its effect on team identity. He showed that when individual team members hold a strong level of team identification (social identity), they are more likely to cooperate with other team members. Hogg & Terry (2012) describe how individuals who define themselves in terms of social identity show a stronger salience for a team identity than for their individual identity and share a

common social identity with other team members. That is, when team members put the goals of the team above their individual goals, the team demonstrated more intra-team cooperation, resulting in a more productive team. If there is a team member exhibiting PWE and this does not align with the social identity of the team members, the team motivation may decrease, resulting in an in-group and an out-group. This consequently lowers intra-team cooperation, taking focus away from the team goals and decreasing team productivity.

Social acceptance within teams can be influenced by the perceived effort of its members. Social acceptance is a judgement made by team members about how willing they are to recognise, approve and cooperate with an individual (Shamir, 1990). Shamir reasoned that social acceptance of an individual often depended on their perceived contribution by other team members. Thus, if team members perceive that an individual is withholding effort, then the social acceptance of that member may be lowered. When social acceptance within a team is low, cooperation will also be lowered, reducing the focus on team goals and resulting in lower team productivity.

Schnake (1991) suggests that the 'sucker effect' can be a consequence of personnel withholding effort and may result in further reduction of team productivity. Schnake argues that individual 'A' in a team may decide to withhold effort because he or she believes that one or more individuals 'B' are withholding effort. Individual 'A' believes that individual 'B' chooses not to perform, while 'A' is doing more work. Therefore, 'A' would withhold effort so he/she is not played for a 'sucker' by 'B'. This is called the 'Sucker Effect'. Any team members who withhold effort, reduce the effectiveness of the team. Therefore, the 'sucker effect' further reduces the productivity of the team.

PWE can also affect the member withholding effort by decreasing their status compared to other team members. Ridgeway (1982) equated status within teams as a product of an individual's external status characteristics, task competence and the team's perception of an individual's motivation. By withholding effort, an individual could be seen by other members as having less ability to perform the task (task competence) and less motivation towards

achieving team goals (Haslam, Powell & Turner, 2000). Members of less ability and motivation will be less likely to have their contributions evaluated favourably by the team and will thereby be accorded less input in the team decision making process. This will inevitably result in lower status compared to other team members and may discourage the individual from contributing to the group.

The team leader can also be affected by a member withholding effort (Yukl, 2006). The team leader would need to review the team performance and increase his or her time and resources to improve team productivity. Mintzberg (1973) defined the role of a leader or team manager to include monitoring subordinate performance and disturbance handling. This is supported in an ADF context by the CAF's Commander's Intent 2017 (pp.6) and The Royal Australian Navy Leadership Ethics (pp.96-97) (Department of Defence, 2017c & 2010). Disturbance handling is required when a sudden crisis occurs and takes priority over all other roles. A team with low productivity may warrant not only monitoring, but also disturbance handling, which takes time and resources away from other roles of the leader and thereby reducing the productivity of the leader.

At an organisation level, an individual can negatively influence the effectiveness of the team and in turn, negatively impact organisational effectiveness (Bettenhausen, 1991). An organisation is usually in competition with other organisations. For example, the ADF is in competition with other government departments for funding. Within the ADF, strategic goals are used to develop Service goals, which cascade down to Commands, etc., whose goals are met by individuals who often work in teams. Therefore, individual effort can impact higher organisational goals. An individual who withholds effort can lower the productivity of the team, which in turn lowers the performance of the organisation and exposes the organisation as performing poorer than others. The organisation will therefore, likely be less competitive and may lose funding or project opportunities to higher performing organisations.

## Resolution

The potential for individuals to withhold effort while working in teams is not a new phenomenon (Ringelmann, c1920, cited in Kravitz & Martin, 1986) and can be present in any organisation. This essay will look specifically at the ADF organisation and recommend strategies for leaders to consider when trying to minimise the likelihood of personnel withholding effort when working in teams. Figure 1 displays these strategies and their relationship to the individual, the team and the organisation.


Figure 1. Strategies to minimise the likelihood of personnel to withhold effort while working in teams

Research overwhelmingly suggests that the communication of clear goals, monitoring and implementation of rewards or penalties for each individual team member and team can improve productivity (Simonds & Bell, 1997; Marx & Squintani, 2002; Corts, 2007; Schnake, 1991). Simonds et al. believe that if personnel lack task purpose and expectation, then their performance will be difficult to define and measure, which can be a cause of personnel

withholding effort. Simonds et al, Corts (2007), O'Connor (2006) and Marx et al. concur that a clear organisational purpose or goals, which cascade down into clear team goals, which then lead to clear individual goals that are measurable, will assist personnel in defining their individual role within the team and organisation and also assist supervisors to measure each individual's performance towards team goals. Schnake (1991) also found that the sucker effect was most effectively minimised through the use of clear goal setting. The ADF endeavours to set clear goals through the use of Service and Unit business plans and personnel performance reports, which include duty statements and goals.

Marx et al. conducted a series of group studies where all team members were required to monitor and evaluate each other and report personnel who withheld effort or be penalised for not reporting. The study showed that the number of incidents of individuals withholding effort decreased because individual team members were made more accountable for their work toward group goals. Marx et al. noted that the requirement to monitor diminishes the potential to achieve group goals, however, under some conditions, the instances of withholding effort dropped. The team did not need to monitor each other as much, resulting in higher productivity. Therefore, peer monitoring, peer evaluation and penalising of team members is a useful tool to discourage the withholding of effort. The ADF has implemented voluntary peer evaluation through the use of '360 degree reporting', where supervisors, peers and subordinates can be consulted about an individual's performance. This information is used by the individual to improve their own performance.

Recognition can be a powerful motivator. Leaders can use positive reinforcement (Robbins, Judge, Millett & Waters-Marsh, 2008) to recognise personnel for their performance. According to the 2007 Defence Attitude Survey (Department of Defence, 2007), approximately 50% of personnel believed that they were adequately rewarded for their work through verbal recognition and approximately 34% believed they were adequately rewarded through awards, honours and medals. This suggests that ADF reward systems could be better utilised to motivate personnel. When personnel who are withholding effort see that someone has been

rewarded, they may become motivated to improve their productivity to also achieve the reward.

Penalties can similarly be used to help discourage an undesired behaviour (Robbins et al). Some penalties available to ADF leaders include negative personnel performance reports (which are linked to values), unsuitability reports and formal warnings. If an employee withholds effort and is penalised for it, the likelihood of the behaviour occurring again could decrease, resulting in greater effort and productivity.

Leaders can utilise a variety of different team types to suit the type of task (Sunstrom, DeMeuse & Futrell, 1990). For example, problem solving teams share ideas and offer recommendations to their leaders, whereas cross functional teams are composed of individuals from different work areas, who work together to meet organisational goals that cross departmental boundaries (Kotlarsky, Van Den Hooff & Houtman, 2012). Leaders can minimise PWE by designing effective work teams that use the most appropriate type of team function to achieve team goals. This can also maximise the need for each individual on the team (a feeling of necessity), resulting in lower process loss from 'social loafing' and increased motivation through collective efficacy (Shamir, 1990) and cooperation (De Cremer, 2002).

The level of task difficulty or uniqueness has also been found to motivate individuals and moderate PWE (Harkins & Petty, 1982). When a team task is difficult or unique, there is a need for higher interdependence within a team. Interdependence is defined by Kidwell & Bennett (1993) as the degree to which task goals rely on the contribution of all team members. High interdependence can cause individuals to feel that their contribution is necessary, increasing their motivation and therefore, lowering PWE and increasing team productivity (Weldon & Mustari, 1988). Higher interdependence also requires greater cooperation within the team to achieve team goals (De Cremer, 2002). Therefore, the use of teams may be optimal for tasks that are difficult or unique because of higher interdependence, motivation and lower process loss due to overlap of individual ideas and skills.

Collective efficacy is a strong individual and team motivator for contributing effort toward team goals (Shamir, 1990). That is, the team's belief that their team can achieve their goals, by emphasising the relevancy, value and purpose of team goals, explaining how they contribute to organisational goals (O'Connor, 2006) and relating the importance and purpose of each individual towards meeting the team goals. This will likely increase the individual's desire to contribute, as well as intra-team cooperation, resulting in an improvement in social acceptance and status of the member who previously withheld effort.

Leaders can use team composition to moderate PWE by selecting team members who may be likely to work together again in the future (future interdependence). Groenenboom, Wilke and Wit (2001) showed that if individuals expected to work with current team members again in the future, then they exhibited more effort toward the current team's goals. O'Connor (2006) suggests that leaders could further enhance team performance by using teams more often or increasing the rotation of team members, in order to increase the instances of interdependence.

Ringelmann conducted an experiment (Kravitz et al.) where individuals and various sized teams pulled on a rope and individual effort was recorded. Results highlighted that as the team size increased, individual accountability decreased, meaning that the contributions of each individual were less visible and the likelihood of PWE increased. In an organisational context, this suggests that the smaller the team size, the easier it is for the leader to identify the efforts of individuals and therefore recognise personnel who withhold effort. This does not, however, mean that small team sizes are always the best way to achieve goals. The ideal team size will depend on the required task. Leaders would benefit from considering ideal team size when selecting individuals to moderate PWE and consequently team performance.

As discussed earlier, an individual has a personal identity and a social identity (team identity) (Hogg et al.). Leaders can encourage a social identity salience and therefore, increase team productivity through positive team experiences. For example, the ADF conduct adventure training to help personnel work together as a team. This helps internalise team goals, values

and norms, which result in individuals who are willing to conform to team values, even when they know they are not being monitored (Hogg et al.). Therefore, the team can become self-regulated by the team members and consequently reduce the need for the leader.

A brochure titled “A Leader’s guide to personnel who withhold effort in teams” is attached as annex A. This provides a summary of how personnel withhold effort, what can cause it, the effects of withholding effort and how leaders can reduce the likelihood of personnel withholding effort. A mind map is also included for leaders to see an array of strategies which can be applied in a variety of situations at a glance.

In conclusion, as the ADF continuously moves further toward interoperability to meet shared goals, the possibility of personnel who withhold effort when working within these teams has increased. ADF leaders can decrease the likelihood of individuals withholding effort, and assist individuals to better align with Defence values and thus, ethical behavior. Increasing team and consequently organisational productivity, will enhance the ability of the ADF to meet its primary goal to defend Australia’s national security and interests.

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CATEGORY ONE

FIRST PRIZE

# Discuss the Ethical Challenges in Satisfying Both Personnel Welfare and the Organisational Requirements of the ADF

**Author: Leading Aircraftswoman Jessica Watson**

## Author's note

I write this essay from a bottom-up perspective as a junior enlisted member with six years of service. In preparing to write this essay I sought to draw on my own experiences and examine issues which have affected myself and my peer group. This essay will address the ethical challenge of satisfying both the Australian Defence Force's (ADF) organisational requirements whilst also considering the welfare of its personnel.

## Introduction

Much has been written about the unique nature of military service. It is unique because employees, under very strict circumstances, are able to use lethal force to achieve political aims. At its heart, the ethical dilemma is a competition between the sanctity of life, and the maintenance of sovereignty it strives to protect. This 'right to kill' for the sake of the nation-state is ethically fraught, and has been widely debated amongst philosophers, military leaders, and policy makers. Studies of ethics and war often focus on an organisational perspective, and examine conduct during conflict, or how leaders and their subordinates perform under pressure.

In particular, they examine the ethical decision making processes. It is right that ethicists discuss and debate military activities during war; it helps mitigate the potential for disasters such as Abu Ghraib. However, the conflict between ADF objectives and personnel management is a topic which does not feature heavily in the discourse surrounding military. Therefore, this essay will consider the ethical competition between the organisational requirements of the

ADF and the welfare of its personnel. These two priorities are in constant competition because ultimately, military leaders can order subordinates to risk their lives for the cause. This essay will first address the topic of ethics in the military, and will then demonstrate how personnel welfare often conflicts with organisational requirements. Discussion of the implications, potential solutions, and an argument for the constant consideration of ethics and a spirit of continuous improvement will be then be considered.

For the purposes of this essay, it is necessary to define the following terms.
*Personnel Welfare:* is defined as "the state of doing well, especially in respect to good fortune, happiness, well-being or prosperity" (Merriam-Webster, 2018). From an ADF perspective, personnel welfare encompasses physical, mental and emotional well-being, as well as the well-being of ADF spouses and families.

*Organisational Requirements:* are defined as the set of obligations which Defence must meet in order to sustain capability and enable successful ADF missions. In the ADF, organisational requirements dictate the situations and tasks which personnel may be subject to.

## Discussion of ethics

Smith offers a succinct summary of ethics as "what is right and wrong, in particular what is right and wrong to do". Further Smith argues that ethics "involves choices which are difficult" (2006, p.1). In terms of military ethics, Olsthoorn (2017, p.4) argues there are three moral theories which may influence the ethical conduct of military personnel: virtue ethics, duty-based ethics and utilitarianism. According to Olsthoorn:

> *"Virtue ethics focusses on the kind of person one wants to be, and calls for the development of good predispositions – we are virtuous to the extent that doing the right thing gives us pleasure Duty-based ethics, which stresses the importance of universal, categorically binding moral norms, asks us to follow moral rules against our natural, selfish predispositions. Utilitarianism, finally, holds that we should base our judgement of whether an act is morally right or*

> *wrong (and hence also whether it should be done or not) upon the foreseen consequences."* (2017, p.4)

In the ADF, these three schools of ethics can be seen across different organisational levels. At the individual level, the ADF encourages its members to be virtuous. At recruiting, trade-training and day-to-day work, members are expected to uphold their individual values, and do what is morally right, to the extent that 'doing the right thing' gives them a positive sense of self. The ADF and single service values are an example of Olsthoorn's "universal, categorically binding norms" (2017, p.4). They are the morals to which all members are held accountable for their actions. In the ADF context, utilitarianism has the potential to be the most problematic ethical line of thinking, especially because negative "foreseen consequences" may be a by-product of achieving strategic goals. For example, in Iraq as part of Operation Inherent Resolve, Australia's mission is to "defeat ISIS" (OIR, 2018). During the conduct of operations, a RAAF Super Hornet airstrike against an ISIS position resulted in civilian casualties (Greene, 2018). Applying a utilitarian approach, the foreseen consequence (i.e. the destruction of an enemy sniper position which enables the overall goal of defeating ISIS) is morally right, despite the "regrettable" and ethically questionable instance of civilian casualties (Greene, 2018).

The utilitarian school is most troublesome in a military context due to the nature of the profession. As an organisation, the ADF is successful in part because it relies on order and obedience. Virtue and duty-based ethics are difficult to apply if a lawful order conflicts with what an individual deems to be moral. This means that junior members rely on their leaders to issue ethical orders, to conduct actions which are deemed moral at the very least from a utilitarian perspective.

As discussed, military ethics often looks at military conduct toward non-military members (e.g. the enemy, civilians, and prisoners of war). But what if this sort of ethical examination is applied introspectively? According to Smith (2006, p.3), critical analysis is essential because ethics "influences how the military organisation manages its own members". Although ethical dilemmas are "most acute in war… they are not absent in peacetime" (Smith 2006, p.1). For

example, Cullens (2007, p.3) cites Peter Cabban on the HMAS Voyager – HMAS Melbourne collision in 1964, explaining "the scandal that followed … was the ancient moral dilemma of having to choose between personal conscience and the common causes: the expendable individual against the greater good". Thus, it is important to examine ethics during peacetime, and from an internal-ADF perspective. Failure to observe this aspect carries the potential for decreased loyalty and cohesion amongst members, and carries the risk of reputational damage to the ADF (Smith 2006, p.3).

## Demonstrate how welfare conflicts with requirements

Fundamentally, there is an intense undercurrent of conflict between organisational requirements and members' welfare. At the very core of this dilemma is the fact that the ADF can legally put its members in 'harm's way'. However, this rarely arises, and measures are put in place in advance to prevent its necessity. In recent decades, this risk based approach has proven largely successful as the ADF's casualty rate in conflict has rapidly declined from World War I to its operations in the Middle East. In this regard, the ADF has done well in balancing mission accomplishment with the safety of its personnel.

However, aside from life-threatening combat, there are other forms of harm which the ADF may inflict upon its members. The rigors of life in Defence are dissimilar to most other occupations. In a Defence career, one can expect multiple operational deployments, unpredictable postings and relocations, long and non-routine working hours, and potentially hazardous working conditions. These are all part of 'getting the job done'. Combining this with a rigid command structure and personality clashes, the ADF workplace becomes fraught with the potential for stress, conflict, and injury. What makes this situation potentially more calamitous is that this harm is not only restricted to members, but extends to their families as well. It is often argued that for these sacrifices, members are compensated with generous allowances and tailored services. The danger here is that Defence may use this compensation as a means to justify continued adverse working conditions, rather than adopting a culture of continuous improvement.

## Relocations and family issues

The findings of a number of surveys highlight salient points regarding ADF members' experiences, and the potential for harm. Wensing and Brown (2016) focussed their research on absences, relocations, deployments, and members with dependents unaccompanied (MWD(U)). Most notably, Wensing and Brown's research shows slight but significant perceptive differences between commissioned officers and the enlisted. For example, in a survey used to gauge the challenges of living as MWD(U), there were consistently less senior officers who reported difficulty when compared to enlisted members (Wensing & Brown 2016, p.15). Another survey asked respondents whether they were able to use all of their MWD(U) reunion travel in the final 12 months of their posting. 58% of senior officers answered yes, compared to 32% of enlisted. Although the ADF has progressed significantly in closing the divide between officers and enlisted, there is still a perceptible division between the experiences of officers and enlisted.

Officers of all services are trained to achieve the mission, whilst looking after their subordinates. Yet, when they have different lived experiences and a mission-first attitude, this may lead to a tendency to forget or overlook the welfare of their people. As Olsthoorn explains, "leaders create (and bear responsibility for) the ethical climate" (2017, p. 30). But Olsthoorn also remarks that ethical leadership "loses its forces" when leaders are presented with more efficient strategies (2017, p.3), leading to the temptation to prioritise platforms over personnel.

Another problematic aspect is Defence's increased tendency to outsource welfare to relatively independent organisations (often with limited Defence oversight) such as Defence Community Organisation (DCO), Vietnam Veteran's Counselling Service (VVCS), Soldier On, Returned and Services Leagues (RSL), and Department of Veterans' Affairs (DVA). DCO is an example of a detached organisation which aims to help Defence families. To provide a small illustration of the impotence of DCO, an overwhelming majority of respondents in the 2017 Defence Families Survey were either unaware of the services provided by DCO, or were aware but had not used

them (Atkins et al. 2017, p.42). Further, an average of 9% of respondents who used DCO's services and found them to be helpful. While it is somewhat positive that there are a range of welfare organisations available to ADF members, Defence has encouraged the outsourcing of welfare services, thus absolving themselves of their responsibility for members' wellbeing. Such outsourcing limits ADF leaders' insights into the support being offered to their subordinates, producing an ethical issue where budget efficiencies conflict with the effective delivery of welfare.

## Implications and Solutions

When organisational requirements are prioritised over personnel welfare, there are negative implications for Defence's public image. As Smith notes, failures "in how the military organisation manages its own members" often results in "[lost] regard among a nation's citizens for the military force and threatens loyalty and dedication among members of that force" (2006, p.3). Deaths of ADF members on domestic exercises, the reseal-deseal program, and administering dangerous anti-malaria drugs are high-profile examples of instances which show how a lack of ethical leadership has failed ADF members.

Fortunately, the antidote to such ethical dilemmas is close at hand. The ADF's cultural reform programs, such as 'Pathway to Change', cite leadership accountability, ethics and workplace behaviours, health, and workplace flexibility as priorities in the years ahead (Defence People Group, 2017). The ADF and single service values also provide a guide for ethical decision making. The ADF values fit within virtue ethics and duty-based ethics as they seek to elicit good, moral character within individuals, and provide structured, binding norms to which all are held accountable (Olsthoorn 2017, p.4).

With a focus on family and work-life balance, the ADF's acceptance and encouragement of flexibility in the workplace has been a remarkable advancement in an organisation renowned for its strictness and rigidity. This is one example of how Defence is able to reconcile the conflict between organisational requirements and personnel welfare. As a result of this

flexibility, members are able to modify their working hours in a way which suits both them and their families, thus offering a salve to the stringent conditions required during surge periods. This is achieved with minimum impact to Defence efficiency, as Fox writes "flexible employment [in the ADF] has been shown to enhance productivity and output" (2017, p.52). Flexible working arrangements can also avert individual grievances where a member is forced to choose between work and home life, potentially increasing their loyalty and commitment to the organisation.

## Conclusion

Ethics should be at the very heart of any decision in order to adequately weigh any potential harm against the ADF's organisational goals. The application of – and emphasis on – ethics within Defence is paramount to success. As demonstrated, although organisational requirements mandate adverse working conditions in some circumstances, this is not the case at all times. It is possible to mitigate the adverse effects of service life through the application of Defence values and the promotion of flexibility where possible. The struggle to ethically reconcile the competition between the ADF's organisational requirements and the welfare of its personnel requires constant attention, and an attitude which seeks to continuously improve. Ethical decision making ensures the ADF gives due consideration to both its people and its mission.

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SECOND PRIZE

# Leadership and Ethics Regarding Mental Health in the Australian Defence Organisation

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## Introduction

The Australian Defence Organisation (consisting of the three Armed Services and Australian Public Service) is charged with the significant mandate of protecting Australia's National Security and Interests and with this its people are subjected to a myriad of stressors that can result in severe mental illness – particularly in the three services. It is a simple fact that members of the armed services directly involved in conflict and are exposed to trauma, however, it is now clear that people serving at the precipice of conflict are not the only group subjected to trauma (Weathers & Keane, 2007). Support, intelligence, medical, clerical and contract personnel are also subjected to the experiences of war in a vicarious, or in some instances direct manor. With the known exposure to these peculiar and abnormal experiences, it is evident that strong and ethical leadership ensures that appropriate support was received. It is imperative that the right level of support is freely available at the right time catering to a vast spectrum of illness factors and precipitating traumatic factors.

Mental health can rapidly deteriorate when left untreated and the biggest obstacle to treatment is stigma (Rüsch, et al., 2005). Stigma was defined as an undesired difference: a judgemental attribute that implies prejudice, and that when related to mental illness generates fear of the unknown, exclusion, and a set of false theories born from a lack of knowledge and understanding about mental disorders (Santos , et al., 2016). With barriers to care it is evident that leadership and by extension ethical leadership is needed to change attributes of stigma. There are indeed mechanisms in place to reduce stigma, however, this essay will examine the ethics and overall leadership principles that are involved in reducing stigma and fostering a culture in which mental illness is not feared and therefore has no barriers to care.

## Aim

This essay looks to address the leadership and ethical theories that contribute to successfully reducing mental health stigma, treatment barriers and mental illness relating to decision making in the Australian Defence Organisation.

## Ethics Relating to Mental Illness

What are the links between mental health and ethics? O. H. Mowrer argued that neurotic symptoms were attributed to negative feelings over prior ethical transgressions. There is a plethora of factors that relate to ethics regarding mental health, but first, what is morality? To start, many social subtexts and communal values generally define morality, to be a 'moral' person one need to adhere to a set of principled ethics of ideals (Grandy & Sliwa, 2017). Ethics is defined as a system of moral principles, but what defines moral? The Principled-Idealistic factor describes the individual as a highly socialised, mature individual – someone who is self-disciplined, ethical, holds strong beliefs and convictions, is focused on doing what right, is law-abiding and can clearly distinguish what is right and wrong (Wowra, 2005). These personality characteristics parallel a good leader and are seen in the great leaders that have inspired the world, such as Martin Luther King Jr.

Ethics in mental health are of paramount importance due to the social stigma that tarnishes anyone that is undergoing the symptoms of mental illness. Santos et al., found that there is an understanding that social exclusion is a consequence of stigma, and that there is a need to facilitate social inclusion in order to reduce the stigma surrounding mental illness (2016). Given the personality traits that were prescribed in a moral individual, it is evident that these traits are needed in leadership as there is a link between social inclusion and ethical decision making. Ethical decisions or decisions with a moral foundation will lead to better health outcomes including people with a mental illness (Phaneuf, et al., 2016). The inception of programs to reduce stigma and help reduce the toll of mental illness on Defence personnel and the organisation are the result of ethical decisions. Conversely, ethical decision making in the theatre of war may in its self, reduce the trauma that actually cause acute and chronic mental illnesses.

## Ethical Decision Making

Ethical decision making is a concept that has been circulating academic circles for centuries, and is also the focus of significant research, however, why does this topic attract so much academic courtesy? Decisions made at the top echelons of business, government – and more relative to this essay – the military, incur vast ripples that surpass secondary and tertiary effects that are considered during the decision-making process. Ethical or moral decision making should by virtue consider all of these effects even the unknown (Sederer, 2012). The far-reaching effects add a significant degree complexity to high level decisions. Furthermore, it is now known that both political and military decision in the context of the Australian Defence Organisation relate intrinsically to mental illness and the therapeutic outcomes of the people with any illness of the spectrum of mental health (Cleary, et al., 2011). Conversely, positive moral decisions that carefully consider the risk factors of mental illness can have an overwhelming positive effect. In the 2 Commando Regiment where mental fitness is at the forefront of decision making. This also advantages the unit's human performance, the battle space of modern warfare is fought in two domains (1) physical domain – which is easily quantifiable – and the (2) personal psychological domain (Department of Defence, 2009).

Decisions made in theatre and garrison have differing effects relating to mental health.
In garrison decisions predicated conditions that can be encountered in everyday life, theatre decisions are related to war like conditions and the associated exposure to trauma, however, there is an invisible link between these two domains and that is vicarious trauma (National Institute of General Medical Sciences, 2012). The simple fact that our organisation is mandated to destroy property and kill people is in its self as a function this is not normal within society, and with this task often comes a connection with trauma – even if exposure is not direct. Members of the Australian Defence Organisation are subject to in some way helping end human life and causing the destruction of property can be first hand, such as the pilot delivering a munition or as indirect as the intelligence team miles away conducting battle damage assessment. Moreover, this can also be the maintenance team servicing the jet, or the support staff that process the ordinance orders. These links to trauma may not be seen by a

decision maker and the ramifications of an unethical decision may be far graver than seen at first glance.

To contextualise the traumatic consequences of unethical decision there is evidence that within the Defence Organisation there is a higher incidence of post-traumatic stress disorder, which is also the case with first line responders in the community such as police officers and ambulance workers. In a combat scenario where exposure is direct decisions can control the degree to which violent trauma is experienced, a tactical decision can lead to exposure but so can strategic decisions. This decision paradigm is easily conceptualised as it is commonly used in entertainment by the way of popular motion pictures and television programs where decisions lead to increased exposure to violence (Santos , et al., 2016). As a contrast, decision made at the highest levels of government could lead to possible exposure to trauma, particularly when policy may not allow for ethical decision making. In the case where the decision to end a life – in the context of the military – occurs can it be considered ethical leadership? And how does this effect mental health for leaders and followers?

With an increase in authority as one becomes more senior in an organisation decision making begins to affect more people. In the military this can indeed resulting in the deaths of people under one's command or the deaths of other combatants. From a civilian point of view, the decisions that are made can affect capabilities that are directed at causing death (Foreign Affairs, Defence and Trade Committee, 2016). From an organisational point of view, the Australian Defence Organisation has a high tempo and if often stretched, the pressures of ensuring Australia's national security can cause members to become ill, and has resulted in suicides (Scarr, 2015). Who is to know that the pressures of the organisation are not causing this loss of life from an internal point of view.

## Leadership and Mental Health

The ambiguity that surrounds mental health can be linked to a lack of mental health literacy (Scarr, 2015). Mental health literacy is the level of knowledge about mental health and the details surrounding mental illnesses. Mental illnesses are greatly misunderstood and the

reason for this is the stigma that surrounds a mental diagnosis such as someone with schizophrenia being crazy. This section of the essay will discuss mental health in leaders, leaders championing mental health literacy and how ethical decision making is needed to combat stigma.

Leadership positions have pressures that can result in stress and have links to mental health deterioration, stress is an aroused state; if this is constant the negative physiological effects can be detrimental to health for example, hypertension leading to vascular diseases. The effects of stress on for instance the adrenal-hypothalamic-pituitary axis have is to depression and constant stimulation leads to endocrine related health issues (Craft, et al., 2015). The leaders of defence are exposed to stress and therefor with an increased mental health literacy will be more likely to identify issues with their own mental fitness and indeed champion schemes to increase understanding of mental illness in the greater defence community.

It is proclaimed that leadership is in all levels in defence, by this virtue it is warranted that there is a level of empowerment regarding mental fitness of its employees. Mental fitness is a term commonly used by the Commando Regiments Human Performance Wing (Department of Defence, 2009). Mental fitness is regarded as the accumulation of several aspects of mental wellness such as resilience, adept coping mechanisms and strategies, relaxation techniques and many other skills and proclitic measures pertaining to the maintenance of a healthy mental state. The maintenance of mental health can have many ramifications that are the direct result of decision makers, this can be viewed from two aspects – the first being capacity for diction making and the second being able to understand when mental health is affecting one's decision making capacity.

Ethical leadership is derived from morality, if decisions are made by an individual that does not have the capacity then the decisions are not moral or indeed ethical (Blegen and Severinsson, 2011). In the scenario where somebody has a brain tumour pressing on their frontal lobe resulting in alterations to personality, there is a natural instinct to identify that person as changed. Ethically it is appropriate to ensure that the capacity for decision making is

considered and the individual has a physical evidence proving a change (Campanella, et al., 2014). However, when personality changes or deviations in rationale are a result of a mental illness it is far less natural to rationalise the repercussions of decision making capacity. This paradigm is explored constantly in public and military office, and indeed needs the attention of research, as in the Australian Defence Organisation decisions can result in the loss of life, both friendly and enemy.

With the loss of life being a consequence of decision making in Defence – particularly regarding military operations – we must have leaders that are ethical in their decisions. First and foremost, when decision involve life or death ethics are acutely important as they can guide a person to making a moral decision that in essence is right according to a specific value set. The value set that this essay refers to is the major subculture within Australia that embodies a Christian set of values (Garneau & Pepin, 2015). This is also consummate with the Defence Values and all the single service values, a prime exemplar of this are the Royal Australian Air Force values which are; Respect, Excellence, Agility, Dedication, Integrity,

Teamwork (Royal Australian Air Force, 2018). The two values in this set that are linked to ethical leadership are integrity and teamwork. Integrity is a parallel to morality which is the concept that leads to an ethical decision, the right decision in the right context and for the right reason. Teamwork, however, is harder to connect to ethics although it is evident that when one listens to their team results in a better, more ethical decision due to the capitalisation on a collective of values, intellect, experience and may other cultural, social, or values-based character aspects of individuals.

Values set the grounds for coping, as do ethics, by allowing a person to rationalise what they are doing as right. Knowing what is right can be a very subjective experience and what is culturally right may not be right from a legal standpoint. This flows onto leadership in Defence, and particularly the military. The Australian Defence Organisation and in particular military is charged with protecting Australia and its national interests across the globe, under this mandate there is involvement in kinetic operations which result in intentional killing and

destruction of property. This is not a normal function for a person in general, let alone a person in Australian society. This leads to decision-makers sometimes making calls that are not in line with their values or Australian values, such as targeting civil infrastructure that is used by an enemy force but also by a local civilian community. This is further questions when collateral concerns of war are mitigated, however, still result in the undeserving loss of life. This paradigm in its self can leave a decision-maker with trauma that is only felt in the military, leaving this untreated or screened a psychological pathology such as post-traumatic stress disorder as the result of exercising military command.

Leadership is required to be sharp, collective, decisive, quick and correct at the highest echelons of command and staff in the Australian Defence Organisation. Operations, exercises and activities can result in the loss of life whether it can be accounted for or not. This is a unique exposure that leaders are confronted with and if left vulnerable will fester resulting in negative health outcomes. Early intervention is needed when illness arises, without less stigma and the knowledge to identify deterioration when vulnerability is high. All employees of Defence are at risk, hence the need for funding and programs of support that are available across all levels of Defence Leadership right down to the lower ranks. All members of Defence are leaders, the vulnerabilities of leadership, and making ethical decision have more significant ramifications the more senior the member.

## Conclusion

Many factors make up a person, their personality, their experiences, their culture, their genetics and their holistic health all play intrinsic roles in defining the whole person. The collection of these aspects, and more, contribute a set of variables leading to a result – the person. People are leaders, and with leadership comes a need to have a governance framework and in the context of this essay that was ethics. Ethical leadership is doing what is morally right, the best decision in a given scenario, whilst also being guided by a set of values accepted by society. A moral foundation and is often the only difference between what is right and wrong when, there is no clear path. Integrity is a mark of individual and institutional good character; it is a characteristic that leaders in defence are required to demonstrate. Mental

health effects a high proportion of defence members particularly in the armed services, education is key in allowing the stigmatisation surrounding mental illness to subside – as misunderstanding and myths drive the stigma.

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**THIRD PRIZE**

# Contextual Leadership & Communications Strategy: Empowering Junior Leadership

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## Introduction

Many discussions on leadership explore and analyse various leadership strategies and are often aimed at the middle to senior management level of organisations. While this logically makes sense, as leaders at the top half of organisations often wield the most power and as a result, wear the most responsibility and risk, it unfortunately does leave out the importance of leadership amongst those most inexperienced within an organisation. Although the junior members do not manage, nor do they wield much power or wear much responsibility comparatively, their contextual and influential leadership is nonetheless very powerful and valuable. This is all the more pertinent for modern militaries as a lot has changed over the last fifty to a hundred years (Barrett, 2017). During the past, the typical demarcation between officers and the enlisted was a matter of breeding, as well as educational and social agency, the extent to which this has changed may be quite surprising to some career military professionals (Barrett, 2017). Today, some of the most militarily inexperienced members in our organisation may be tertiary educated, have significant civilian experiences and technical expertise or further, have harnessed the tools of a globalized world to craft themselves into informed, adept and agile workers. In the contemporary world, the choice between commissioning and enlisting is often rather a matter of preference than ability.

## Contextual Leadership

Many civilian organisations have long since been recognising the merits of fostering leadership at all levels of their organisations, rather than focusing solely on developing the top. This is even more imperative for a modern military as our line of work, typically speaking, has a greater level of everyday risk and responsibility, from the safe operation of expensive and high-risk military platforms, to the politicised and legally intricate responsibility of the use of force

and wielding lethality (Barrett, 2017). The level of ethical leadership required by a Commanding Officer working in the theatre level of operations is not dissimilar to a Private, Airmen or Sailor's level of responsibility for their small part in delivering the Commander's Intent at the lowest level, as the orders flow down (Richards, 2014). In fact, the most junior ranks are the ones doing the bidding of senior members and as a result, leadership at this level is imperative as it is the insider who can most quickly and effectively influence the ranks (Richards, 2014). Superiors, organisational leaders and command are not in question here as they are vital and valuable elements within the necessary hierarchical structure of an effective fighting force.

What is being pushed to the foreground are leaders from within a junior peer group who everyday contribute to organisational goals and Command Intent through influence, courage and integrity. Particularly, the effect these members have on normalising and shaping behaviours, through the ability to practice 'good conformity', which influences 'right' behaviour is a well-known theory in sociology (Cialdini & Goldstein, 2004). As Israel Ayivor stated, 'a true leader is a person whose influence inspires people to do what is expected of them to do' (Ayivor, 2017). Many sociologists have studied how social pressure can be used in a positive way by natural leaders from within a peer group who have the courage to stand against the crowd when required and by virtue of this, encourage and endorse a group's behaviour, attitudes and beliefs more positively, such as aligned with a Commander's Intent and wider organisational objectives (Cialdini & Goldstein, 2004).

In line with this theory, many junior members of our organisation who actively utilise their organic and contextual leadership to influence their peers towards organisational goals are often overlooked when it comes to leadership training and development. Like many other organisations, Defence touts the idea of leadership being exercised at every level however; the architecture to support, equip and encourage these junior leaders in their particular brand of contextual leadership is insufficient. Defence does provide junior leadership courses in preparation for promotion to the Leading Seaman and Corporal levels, however these courses strongly focus on organisational, ancillary or administrative training that are associated with

increased rank and less so about obtaining knowledge of contextual or 'on the ground' leadership or about themselves and their propensity to influence. Leadership, of course, is discussed on these courses but is more of a one size fits Defence approach rather than tailored to the specific type of leadership these junior members engage in, through influence, courage and integrity. The rank-based leadership courses are nonetheless valuable in order for junior members to acquire the requisite administrative and organisational knowledge for the next rank and to have an introduction into wider organisational leadership philosophy (Department of Defence, 2017). Despite that, these rank-based leadership courses could be complemented by a leadership workshop that focusses on the contextual, influential and personal levels of nascent leadership. That is, individuals learn about themselves, their strengths and weaknesses, how they are viewed by their peers and how that awareness can contribute to members becoming even more effective leaders in their workplace. For example, the Life Styles Inventory (LSI) full three day course offered at the SNCO/Senior Sailor and Officer levels would be of use much earlier in member's careers as it focusses precisely on these areas and in particular includes a comparison between peer evaluation and self-evaluation for each trainee. I was afforded the unusual, but useful, opportunity to attend the full suite of courses as a Seaman and can personally attest to the benefits of this type of personal development. Not only was I able to compare my own evaluation, to how my peers evaluated me, I was provided with countless resources and tools on how to better influence and encourage my peers through learning about learning and personality styles.

***Recommendation 1***

Contextual leadership development workshops, such as the LSI full course or similar, could be made available to junior members of the organisation, preferably at Able Seaman, Private Proficient/Lance Corporal and Leading Aircraftman/woman level. This type of course will equip members with less organisational experience with an increased self-awareness as well as an awareness of how they are viewed by their peers and how they can become influential leaders without command.

***Recommendation 2***

The organisation would greatly benefit from the implementation of a Defence Junior Leadership Summit, on a peer/supervisor nomination basis. The content of the summit would focus on information sharing methodology and encourage contextual leaders who encourage 'good conformity' to a professional and moral military ethos in their teams. This would be achieved by a variety of keynote speakers sharing their experiences along these lines of communication, as well as several workshops and networking events for the delegates themselves to exchange experiences. The peer or supervisor nomination ensures that the chosen delegates of the summit are members who have already demonstrated they have the natural ability, motivation and desire to contribute to the organisation in this way and can force multiply that stellar conduct into the future.

## Benefits

As previously mentioned, the implementation of these recommendations will not only equip junior leaders within our organisation with further coaching and development, but it ensures that the 'right behaviour' as outlined in Pathway to Change can be encouraged via the insiders of peer groups, not just from the top down (Department of Defence, 2014). Due to rank, superiors are seen as outsiders, but the leader within can often more effectively set the behavioural standard, as the 'insider' (Cialdini & Goldstein, 2004). Transformational change requires connecting with people's attitudes and often the most effective way to do that is from peer influence. Additionally, contextual leaders with little organisational experience can take courage from being identified for leadership development workshops and be afforded another opportunity for information sharing and collegiate discussion. As a result of this additional organisational empowerment, positive and focused junior leaders can become force multipliers of wider organisational goals at the micro level, by normalising ADF cultural intent and ensuring our members are 'on board' with the requisite attributes required of a professional and ethical modern warfighter.

## Civilian vs Military Leadership

It is often very useful for military leadership to reach out to their civilian counterparts for sharing experiences and challenges, as there is a certain universality about leadership generally, regardless of the industry each organisation is placed in (Department of Defence, 2017). The only difference between the challenges faced by military and civilian leaders is the context and culture in which they occur (Department of Defence, 2017). As stimulating as it is for military and civilian counterparts to exchange ideas, utilising civilian consultancy services as the basis for Defence objectives can be problematic based on the differing cultural and contextual differences in which the respective leadership occurs. An example of this is in the annual Global Human Capital Trends report, authored by Deloitte, a well-known consultancy firm. The 2018 Global Human Capital Trends report highlights twelve critical issues for organisations, one of which is an impasse for senior management in how to encourage leadership at all levels, particularly amongst the lowest levels of an organisation (Deloitte, 2018). The challenge of encouraging leadership at all levels is described as 'a new challenge... in developing Millennials and multiple generations of leaders, meeting the demand for leaders with global fluency and flexibility… in order to build the ability to innovate and inspire others to perform' (Deloitte, 2018). I would argue that each generation of leaders has to navigate the complexities of managing various age groups and Millennials, as the current, younger generational group, are not entirely different to generations past. In studies of generational attributes, there are often some similar traits possessed by consecutive generations albeit utilising synonyms, giving each group an air of individuality (Patterson, 2005). The main generational differences are usually immediately identified with large scale cultural events such as the Great Depression for Traditionalists, the rise of industry for the Baby Boomers and the information explosion for the Millennials (Neeser, 2016). The unique aspects of that generation's culture only serves to provide an insight into what might be the best way to frame the leadership approach to that particular generation, rather than requiring a completely new leadership paradigm to be engineered (Neeser, 2016). In the example of Deloitte, utilising terms such as 'global fluency' which is abstract and immeasurable, only serves to reify the perception of gaping differences in the *modus operandi* between different generations, when

realistically the desire to do well, to achieve and to be a good leader are universal concepts (Patterson, 2005).

This type of abstraction is particularly worrisome when it aims to address the issue of cultivating contextual leadership occurring amongst the junior ranks but crafts an air of complexity and offers no pragmatic solutions for key stakeholders. A further problem with this type of approach is the basis of the research only utilises data samples from the highest levels of an organisation but aims to address an issue at the bottom (Deloitte, 2018). Whilst the premise of requiring leadership to be encouraged at all levels is not disputed, the recommendations or lack thereof provided by reports such as these, serves to highlight the unique culture and context of a modern warfighting organisation. There are several factors at play here. Although leadership is a universal concept, the context and culture of where leadership is practiced differs greatly (Department of Defence, 2017). Equally, sampling data obtained solely from the higher echelons of an organisation is useful to ascertain the struggles from an implementer perspective but it's equally important to see how these struggles identified by seniors appear in practice by less experienced members of the organisation.

Leadership at this level cannot be wholly measured in statistics or in a stylised report, for it is raw, organic and grass roots, emerging from the most inexperienced groups in our organisation in an agile and effective way. Similar to how you cannot pick up the flame off a lit candle and arrange the flame separately, in a particular manner alongside other separated flames, you cannot take this type of leadership out of its context and quantify or measure it. What you can do however is feed the flame by rearrange the candles, utilising proximity and influence by placing some candles near each other to create a roaring fire. As lyrical as this sounds, the concept rings true. It's due to reasons like this that the well intentioned advice offered in some consultancy reports for militaries often uses trending terminology and abstraction but offers no practical and measureable output and results in rather a restatement of the problem.

## Communication

The issue being foregrounded here is ultimately about communication. The tendency for consultancy firms to theorise and advise in this ethereal and abstract way should be noted for military organisations seeking guidance, as it may only serve to dilute the purpose, without paving a way forward. For a modern warfighting organisation requires a pragmatic, procedural and outcome-based approach, by necessity of the complex nature of our business. This type of disconnect that reports like the Global Human Capital Trends highlight is a perfect example of the 'disconnect' between senior and junior ranks. As noted previously, while this 'disconnect' is a necessary feature of our hierarchy and makes us effective practically, it is damaging in the communications realm. As the Global Human Capital Trends reports highlights, the issue of how to encourage junior leadership from the senior leader's perspective is a well-known high priority (Deloitte, 2018). This inability to know how to tackle the problem at the senior ranks could stem, in part, from the junior member's lack of strategic corporate knowledge of our ADF, thus creating a vast chasm between the two groups.

Part of the 'disconnect' between enlisted personnel and officers is a natural and necessary separation between superior and subordinate, however, in the case of Defence I would argue that this disconnect is further reinforced by a strategic communications methodology which is not sufficient for a generation raised in the information age. Proven junior leaders within the organisation can serve as pioneers to higher command, helping them bridge the organisational fluency gap. Unless a message can effectively harness the tools of multimedia, modern language and organisational intent, and be reduced to a few sound-bytes, any strategic messages are frankly, ignored or not understood. The inexperienced leaders in our organisation have the ability to contribute to Defence here by harnessing both their contextual leadership and their skills in navigating the information age. Defence has taken noticeable leaps and bounds in this area, utilising stylistic multimedia and harnessing the power of the online social world to communicate. However, a lot of this focusses on the 'what' and the 'how' of our business and less so on the 'why', arguably the integral part. While this paper will focus on the requirement for an improved communications strategy between senior and junior

levels of the organisation, I would argue that this example is only a microcosm, of the greater rift in understanding between Defence and the wider public. Particularly as we are embarking on some of the largest recapitalisations of ADF platforms as well as a strong push for an exponential Defence industry to achieve these aims. In addition to that, the nature of contemporary warfare has irreversibly changed, ensuring this communications gap will require increased focus as government continues to pledge to tax dollars to achieve these aims. An effective communications strategy that enables an understanding of the 'why' to both the inexperienced in our organisation as well as the public sector, is imperative.

***Recommendation 3***

Develop an improved and agile communications strategy for strategic Navy messages ensuring some of the organisation's junior leaders are afforded the opportunity to input and test the delivery for maximum absorption. This will go a long way in ensuring all levels of Defence deeply understand what their concentration of effort is contributing to and will provide the communications framework for a deeper understanding amongst the wider public in the future. Steps to achieve this could include previews and input from inexperienced Soldiers, Sailors and Airmen/women for major Service/Organisation-wide communiques, aiming to relay the message in a contemporary way through a few, captivating sound bites. Speaking from the Navy perspective, a perfect example would be a succinct multimedia package on 'why' the government is conducting the largest recapitalisation of the fleet and one of the largest apportioning of funds to naval platforms and naval lethality in many years (Barrett, 2017). The concepts of sea control and sea denial unfortunately aren't as accessible concepts as other Defence narratives.

## Benefits

An enhanced communications methodology, utilising the insider knowledge of junior leaders, will bridge the information gap between experienced and inexperienced members of our organisation and contribute to greater awareness of strategic thinking within Defence. A key concept in this proposed methodology includes previews and input of strategic multimedia

packages from junior leaders. This development also has the propensity to be broadened to assist in increasing wider public knowledge of the 'why' of Defence spending and activities on and off the Australian station.

## Summary

This paper has highlighted how, if supported, the nascent junior leaders in the ADF can be force multipliers for influencing their peers to achieve strategic cultural reform and organisational objectives. The sociological framework of 'good conformity' can be utilised within Defence, by affording junior leaders the opportunity to develop their organic and agile contextual leadership through the provision of junior leadership workshops and summits (Cialdini & Goldstein, 2004). As Robert Sharma poignantly said, 'leadership is not about title or designation. It is about impact, influence and inspiration'. This is typical of the junior leaders within the ADF who everyday use their influence and courage in service of the nation. Building upon this concept of organisationally inexperienced members utilising contextual leadership, Defence communications strategy was identified as another key area these junior leaders could contribute to improving. The junior leader's input to dynamic and contemporary strategic communications will play an integral part in lifting the general level of corporate knowledge within the ranks and further, provide a platform to widening this acquisition of knowledge to the public sector. In the words of Tony Robbins, 'to effectively communicate, we must realise we are all different in the way we perceive the world and use this understanding as a guide to our communications with others'.

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CATEGORY TWO

FIRST PRIZE

# Legality, Ethics and Machines: Additional Protocol IV (2018) to the Geneva Convention relating to the Regulation of Combat in Irregular and Asymmetric Warfare

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## Introduction

Recent technological developments and military operational demands are leading to an increasing level of autonomy in weapon systems, notably in mobile unmanned systems.[1] The rapid proliferation and development of autonomous weapon systems raise several ethical and legal issues for the future conduct of war. Advancements in autonomous weapons hold the potential in changing the conduct of war and conflicts.[2] Lethal autonomous weapon systems (LAWS), distinct from armed Remotely Piloted Vehicles (RPV) that are currently in service, will have the potential to select and engage targets without human oversight.[3]

This essay will first define lethal autonomous weapons systems, before examining the inadequacies in existing international law applicable to lethal autonomous weapon systems. It will then propose three articles for the Additional Protocol VI (2018) based on the inadequacies of legal and ethical accountability, and present the justifications of how the articles address the existing shortfalls. Collectively, the three articles and the essay propose for the prohibition of lethal autonomous weapon systems as the best method of approach from different perspectives. The nexus between refined lethality and ethics in the potential employment of lethal autonomous weapons will require significant consideration from military leaders. This is a challenge that requires an immediate response, in order to match the rapid pace of

[1] P. Rogers., 'Unmanned Air Systems: The Future of Air & Sea Power?', *Focus Stratégique*, Vol. 2, No. 49, *2014;*
J. Gertler, 'U.S. Unmanned Aerial Systems', *Congressional Research,* Vol. 1, 2012; US Department of Defense, 'Unmanned Systems Integrated Roadmap FY2013-2038', Department of Defence, 2013.
[2] Human Rights Watch, Fully Autonomous Weapons: Questions and Answers, Human Rights; B. Docherty, 'Losing Humanity: The Case against Killer Robots', Human Rights Watch (November 2012), p. 2.
[3] M. Lark, 'The Future of Killing: Ethical and Legal implications of Fully Autonomous Weapon Systems", *Salus Journal*, Vol. 5, No. 1, 2017.

technological advancement. Lethal autonomous weapon systems challenge the traditional boundaries and laws of armed conflict (LOAC). Subsequent decisions on the approach towards lethal autonomous weapon will shape the direction of new technology and holds significant repercussions for the future conduct of warfare.

## Defining of Lethal Autonomous Weapon Systems (LAWS)

Given how often the term "autonomous weapon system" is misused, the essay will first define what exactly an autonomous weapon system is. Although the various definitions in use today share similar themes, there is no agreed definition of an autonomous weapon system.[4] Common to all definitions is the inclusion of weapon systems that can independently select and attack targets, with or without human oversight.[5] The distinction, however, between autonomous and automated weapon systems is not always clear since both have the capacity to independently select and attack targets within the bounds of their human-determined programming. The difference appears only to be the degree of 'freedom' the weapon system has in selecting and attacking different targets. I have defined lethal autonomous weapon system as autonomous weapon systems that can adapt its functioning in response to changing circumstances in the environment in which it is deployed.[6] Lethal autonomous weapon systems would have artificial intelligence as targeting and engagement of weapon system without human supervision. The critical issue is the delegation of the authority to select and engage targets to lethal autonomous weapon systems, as opposed to retaining that authority within human supervision. This is inclusive of a number of different ways to exemplify this, but this essay does not focus on autonomous robots, or different manners in automating the various processes in the military such as navigation, manipulation and other military processes.

[4] The UN Special Rapporteur define autonomous weapon systems – or 'Lethal Autonomous Robots' (LARs) as robotic weapon systems that, once activate, can select and engage targets without further intervention by a human operator. The important element is that the robot has an autonomous 'choice' regarding selection of a target and the use of lethal force; C. Heyns, Report of the Special Rapporteur on extrajudicial, summary or arbitrary executions, Human Rights Council, Vol. 23, No. 47, para. 38; The Human Rights Watch defined Autonomous Weapon Systems based on the level of human input and supervision in selecting and attacking targets, "The term fully autonomous weapon refers to both out-of-the-loop weapons and those that allow a human on the loop, but that are effectively out-of-the-loop weapons, because supervision is so limited", in B. Docherty, 'Losing Humanity: The Case against Killer Robots'.

[5] M. Lark, 'The Future of Killing', p. 69.

## Inadequacies in international law regarding the nature of combat

Existing international laws are inadequate for addressing the usability and employment of lethal autonomous weapon systems in armed conflicts. The development of autonomous weapon system continues a rapid pace, with autonomous systems used by militaries in a wide range of ways.[7] The essay will outline three key areas within the current international law that fails short in addressing the usability and employment of lethal autonomous weapon systems. First, the legal inadequacies reside in the incapacity of autonomous weapon systems to fully comply with the principle of distinction and proportionality that appears today to be a monumental programming challenge.[8] Conversely, the employment of lethal autonomous weapon systems would reflect a paradigm shift in the conduct of hostilities, and ultimately raises the question concerning the ethical question of whether public conscience could accept machines to make life and deaths decisions and apply lethal force without human control.[9] This leads onto the issue of accountability, determining who would be accountable for violations of international humanitarian law committed by a lethal autonomous weapon system. At the crux of the debate lies the issue of prohibition or regulation of autonomous targeting and engagement weapon systems.

## Proposed articles

*Article 1 – Prohibition*

*It is prohibited to employ autonomous weapon systems lethal in nature or specially designed, as their sole combat function or as one of their combat functions, to target and engage personnel of any status without the decision to engage discrete targets made by a competent human authority'. The High Contracting Parties shall not transfer such weapons to any State or non-*

[6] International Committee of the Red Cross, 'Expert meeting on Autonomous weapon systems: Technical, military, legal and humanitarian aspects', 26-28 March 2014, Geneva, p. 7.

[7] W. Boothby, 'Conflict Law: The Influence of New Weapons Technology, Human Rights and Emerging Actors', TMC Asser, 2014, p. 104; M. Sassòli, 'Autonomous Weapons & International Humanitarian Law', International Law Studies, Naval War College, Vol. 90 , 2014, p. 310.

[8] P. Asaro, 'On banning autonomous weapon systems: human rights, automation, and the dehumanization of lethal decision-making', *International Review of the Red Cross*, Vol. 94, No. 886, 2012, p. 709.

[9] Asaro raises two key questions of: the empirical question whether a machine is capable of decisions of life and death, and achieves a performance that is also acceptable. The moral question is then, whether a machine *ought* to make decisions of life and death, in 'On banning autonomous weapon systems', p. 699.

*State entity.*

*Article 2 – Functions of Autonomous Weapon System*

*The employment of autonomous weapon system that is non-lethal in nature, with functions of navigation, reconnaissance and surveillance, is not covered by the prohibition of this Protocol.*

*Article 3 – Development of Autonomous Weapon System*

*The development of non-lethal autonomous weapon system for military processes non-lethal in nature such as navigation, reconnaissance and surveillance, clearance is permitted. The High Contracting Parties shall not develop any weapons that breech this criteria with any State or non-State entity.*

## Justification

As a new category of weapons, lethal autonomous weapon systems pose serious legal and moral issues for their employment in armed conflicts. These issues constitute gaps within the existing international humanitarian law that render it inadequate in its application on lethal autonomous weapon systems. Despite arguments made by some that international law already sets limits on problematic weapons and their use, responsible governments have supplemented the legal framework necessary to the prevention of threats to civilians.[10] In the prohibition and regulation debate, there are large areas of agreement as well as disagreement on critical issues. The essay will outline the critical issues in four broad strokes of *distinction*, *proportionality*, *moral implications* and *accountability*, to highlight the manner in which the proposed articles address the areas of ambiguity and disagreement within existing international law.

[10] Anderson, Reisner and Waxman, 'Adapting the Law of Armed Conflict to Autonomous Weapon Systems', pp. 407–9; Human Rights Watch, 'Questions and Answers on AWS', p. 6.

## Technological possibilities and impact on the principle of distinction

The prohibition of lethal autonomous weapon systems negates difficulties in the fulfilment of the principle of distinction under Laws of Armed Conflict. Article 1 addresses one of the key dilemmas in lethal autonomous weapon systems - whether civilians and combatants can be reliably distinguished on the battlefield – by prohibiting the employment and essentially development of such a weapon system. The difficulties that arise from lethal autonomous weapon systems development are as challenging technologically as they are legally problematic. Visual recognition remains in its infancy.[11] Faces remain detected over blobs of beige, with further complications from lighting and in-built racial assumption of the colour of skin tone.[12] Further difficulties based on the principle of distinction arise from the IRC's issued guidelines on the determination of status through criteria such as threshold of arm, direct causation and belligerent nexus.[13] These guideline attempts to articulate the criteria for a legitimate target and aid the moral agent in the decision making process in the use of force. Subsequently, to determine the status of an individual requires a sophisticated understanding of a complex situation including: the strategic and tactical implications of a potential threats, as well as the socio-cultural and mentality behind the individual's intentions and actions to qualify as military actions, such as the exercise of self-defence. Consequently, the principle of distinction is critical to not only distinguishing between combatants and civilians, but also essential in the consideration to human lives in the use of lethal force. Numerous scholars support the notion that human agency is a necessity for weighing the value of human lives, civilian and combatant, against the values of military objectives in order to make an informed decision.[14] Values serve as guidance and remains individualistic, and more importantly, values are set by the very moral determinations that go into making proportionality judgements. The prohibition of autonomous weapon system sets a definite boundary in the ambiguity of existing international law regarding the principle of distinction.

[11] Asaro, 'On banning autonomous weapon systems', p. 701.
[12] Ibid. The construction of a robust visual recognition system includes the capability of recognising combatants in uniforms, but not the ability to recognise combatants out of uniforms, or behaviours of aggression, military intent purely from a technological perspective.
[13] N. Mezler, 'Interpretive Guidance on the Notion of Direct Participation in Hostilities under International Humanitarian Law', *International Committee of the Red Cross*, Geneva, 2009, p. 20.
[14] Asaro, 'On banning autonomous weapon systems', p. 707; Boothby, 'Conflict Law', p. 106.

## Proportionality

Similar to distinction, a prohibition on autonomous weapons systems remove any and all rights to the use of lethal force by a machine based on the principle of proportionality. In a comprehensive ban, the additional protocols (namely article 1 and 2) aim to shape emerging technology and the direction it takes. With the aim to increase ethical decision-making regarding combatants and reduce civilian casualties, all technological effects can be directed towards increasing ethical decisions instead of removing people from decision making processes.[15] This then serves as a pre-emptive notion, which would be easier for militaries to accept as no militaries would already be dependent on the technology. There are also precedents for this with blinding lasers.[16] Furthermore, the principle of proportionality requires a subjective analysis of a situation and decisions to be made about values. Although these values are thought to be able to be programmed, these values change over time along with moral agencies. The military value of any target changes with the state of the battle itself, the strategies being implemented and what happens in other areas of the conflict. Essentially, the judgement of values and making decisions on the battlefield requires experience. The training of military leaders and officers requires time dedicated throughout their careers to learn how to make difficult decisions. It is up to them to put the values in, and these values do not derive from the software. Consequently, the prohibition of lethal autonomous weapons codifies and clarifies the boundaries relating to the principle of proportionality in international law.

## Programming values?

The prohibition of autonomous weapon system clarifies the limits between moral agency and technology by highlighting the difficulties in 'programming' values into a machine. The idea of programming international humanitarian law into a computer system is reductive and overtly simplistic. It requires the re-writing of the rules of distinction and proportionality. In order to write computer codes, the interpretation is key to the accurate representation of the law.

[15] Asaro, 'On banning autonomous weapon systems', p. 701.

Asaro and Boothby argue human judgement remains necessary in armed conflicts.[17] A machine cannot replace a moral agent. Despite Waxman's attempt in moulding international laws to autonomous weapon system, as machines lack the fundamental understanding of nuanced social context. In following a set of distinct but interrelated rules, machines have no means to understand whether their interpretation is out of sync with the real world.[18] Waxman, however, presents a strong counter-argument and has argued in several papers that the technology is inevitable and incremental.[19] Asaro, however, argues that it is not inevitable, but believes that it is technologically possible. Although the possibility of lethal autonomous weapon systems exists, the usability and employment of lethal autonomous weapon systems on a large scale is debatable Difficulties arise when attempts to codify international law into programming codes. Furthermore, Asaro and Hynes make the argument that any killing through a panel of buttons is essentially arbitrary.[20] A close examination of IHL and IHRL reveal the specific requirements for human decision.[21] Indeed the whole body of law evolved over the last millennia assumes humans are making decisions, not written in light of machines making decisions.[22] A combination of difficulties in programming 'values' into a machine conclusively supports the comprehensive prohibition of lethal autonomous weapon systems that sets clear limits between technology and moral agency.

## Accountability through the value of law

At the heart of the autonomous weapon system debate lies the question of accountability. The prohibition of lethal autonomous weapon systems directly addresses the issue of accountability in banning the development and use of autonomous weapon systems that is

[16] Convention on Conventional Weapons, Protocol IV on Blinding Laser Weapons, adopted October 13, 1995, enforced July 30, 1998; International Committee of the Red Cross, "Ban on Blinding Laser weapons now in force", 1998.
[17] Asaro, 'On banning autonomous weapon systems', p. 701
[18] Ibid, p. 699.
[19] Further arguments by Anderson and Waxman, that AWS may be technically superior to humans, with the ability to be programmes with Geneva Conventions, IHL and rules of engagement into computer systems, where they will make less mistakes than humans, in K. Anderson & M. Waxman, 'Law and ethics for robot soldiers', *Policy Review,* 2012, p. 5.
[20] Hynes, 'Report of the Special Rapporteur', where Hynes reflect that war, without reflection is mechanical slaughter; Asaro, 'On banning autonomous weapon systems', p. 702.
[21] Asaro, 'On banning autonomous weapon systems', p. 693.
[22] Doherty, 'Losing Humanity', p. 45.

lethal in nature. Article 1 and 3 (Prohibition and Development of autonomous weapon systems) can effectively address the challenges lethal autonomous weapon systems present to adherence to IHL. To further explore the issue of accountability, a key consideration is the potential of malfunctioning or a system hack where lethal autonomous weapon systems can kill or injure civilians. When civilian casualties in armed conflict occur unlawfully, accountability becomes crucial. Accountability in such cases serves at least two functions: it deters future harm to civilians and provides victims a sense of retribution. By negating the possibility of the killings by an autonomous weapon, however, the question of responsibility is voided. It is important, however, to note that in the decision for the prohibition of autonomous weapon systems, considerations into the multiple layers of authority within the military, as well as the lack of a fair and effective way to assign legal responsibility for unlawful acts committed by an autonomous weapon system was taken into account. The regulation of autonomous weapon systems in relation to accountability neither effectively deters future violations of international humanitarian law nor provides victims with meaningful retributive justice. Subsequently, the comprehensive ban of lethal autonomous weapon systems allowed for clear boundaries to be set in all accounts of accountability.

## The balance between refined lethality and ethics

Military leadership in its most defined form exists when a leader is required to make decision in a military context with extreme amounts of stress and duress. This is perhaps best illustrated through the lack of good military leadership, as highlighted by Geoffrey Regan in "Military Blunders".[23] In the absence, the "potential impact on society, however, military failure often has much more serious consequences. In civil aviation, a pilot might cause the death of several hundreds of people, while the decision of a general might kill tens of thousands of people".[24] The battlefield is continuously changing, requiring well-considered and adaptive military forces to react. The decision in the use of lethal force as a capability is a decision that military leaders will need to make under guidance from international laws. However, this will not be the case

[23] G. Regan, *'Great Military Blunder', Carlton Books, London,* 2000, p. 7.
[24] Ibid.

for all militaries or all armed personnel involved in conflicts.[25] Syria's recent bombardment of civilian population with improvised explosives such as barrel bombs in 2015 along with recent chemical attack in 2013 and 2017 against civilians are one example of the use of indiscriminate weapons within the contemporary battlespace. Under IHL Rule 71, the use of indiscriminate weapons is strictly prohibited.[26] This is further supported by the four protocols under the Geneva Convention where specific weapons are banned for this specific reason.[27] Yet, it remains a prevalent concern for military forces globally, particularly during conflicts against armed forces that largely disregard the international humanitarian law or are non-signatories to the Geneva Convention. The impact of the introduction of lethal autonomous weapon systems further compounds the issue where the boundaries of the contemporary battlespace are blurred and multi-dimensional. Ultimately, the aim of conflict is directly aligned to achieve a political outcome. The decisions that military leaders make will need to support this, particularly within an Australian context. The decisions that military leaders will need to make regarding lethal autonomous weapons exists in two-folds, first the response to the lethal autonomous weapons being used by adversary in an immediate response situation, and second, the advice or decision regarding the use of lethal autonomous weapons at a strategic level.

Within the crux of the dilemma between refined lethality and ethical choice lethal autonomous weapon system provide to the military lies the key decision a military leader has to make in the face of an evolving character of conflict. Ethics is at the heart of military leadership, where each decision requires careful consideration. The ability of a military leader to make ethical decisions in new and untested conditions is the essence of what drives the ADF as an adaptive defence force.

[25] P. Pinheiro, 'The use of barrel bombs and indiscriminate bombardment in Syria: the need to strengthen compliance with international humanitarian law', *Independent International Commission of Inquiry on the Syrian Arab Republic*, Geneva, 2015, p. 2.
[26] International Committee of the Red Cross, 'International Humanitarian Law', Rule 71, Mar 2018.
[27] International Committee of the Red Cross, 'Geneva Convention 1949 and their Additional Protocol', second edition, Nov 2012.

## Conclusion

At a juncture of international law, the decision on the approach towards lethal autonomous weapon systems is crucial to the future conduct of warfare. The essay presented the view that autonomous weapon system represents a qualitative shift in military technology, with the elimination of human judgement in the employment of lethal force. This essay first defined autonomous weapon systems of a lethal nature, encapsulating the commonalities of pre-existing definitions, before examining the inadequacies of the existing international law in relations to lethal autonomous weapon systems. Lethal autonomous weapons systems pose legal complications for the principles of proportionality and distinction, as it threatens to undermine human rights in the absence of human judgement and review. Furthermore, lethal autonomous weapon systems also pose moral difficulties in terms of the accountability as a result of the lack of moral agency. It is therefore beneficial to explicitly codify a prohibition on the use and development of lethal autonomous weapon systems. The proposed three articles address the four areas of inadequacies with the aim to clarify the legal limits autonomous weapon systems should operate in. The type of weapons and tactics chosen for engagement in armed conflict also implicitly informs the choice the international community wish to live in and fight for, as well as the legitimate conditions under which the world can be brought into being. Within this context, the actions and decisions of military leaders will take in these new and untested conditions will largely shape the future of the ADF. In making such choices, the international community must resist arguments that any end is either so desirable or undesirable that any means of achieving it are acceptable.

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SECOND PRIZE

# Developing Digital Leaders to win the Next Generation Wars

**Author: MAJ Keyurkumar Patel**

*"When digital transformation is done right, it's like a caterpillar turning into a butterfly, but when done wrong, all you have is a really fast caterpillar."*

George Westerman
Principal Research Scientist
MIT Sloan Initiative on the Digital Economy

## Introduction

The ADF is currently undergoing significant digital transformation and with the increased advancements and innovations in weapons technology, the dimensions of war we will fight in the future have changed greatly. Today organisations are being defined by changes in technical know-how that has led to the advancement in technology which has resulted in disrupting traditional leadership styles. Consequently, customer expectations are shifting at a consistent rate and they are becoming more involved in the business processes. Corporations have shifted from traditional leadership styles to a digital leadership (Thorsten, 2018). For instance, many companies are taking advantage of the increased social media usage across the globe to interact with customers and increase their participation in the decision making process. Digital leadership is the future of business and its effectiveness in driving an organisation towards its set goals and objectives cannot be overemphasized. The style is being applied in social, economic and political establishments, ranging from the military, to government institutions and schools (Jared, 2018). Digital leadership is different from other leadership styles, as it requires leaders with distinct traits (Eric, 2014).

Digital leadership is the most effective style to transform the ADF and digital leaders' needs to be developed to win the next generation wars.

This paper will first define digital leadership, the traits required of such leaders, and compare it with other leadership styles. Then it will evaluate other styles that complement digital leadership. Then it will discuss its application in the military setting, the challenges and

opportunities. Thereafter it will provide an overview of how to make a digital leader, how to maintain the skills and the resources required. In addition, it will also evaluate the next generation warfare and how the digital leaders can transform the military to deal with the emerging issues. Finally, paper will provide recommendations on various facets to enhance the ADF's digital transformation.

## Digital Leadership

Digital leadership is defined as the use of digital resources of an organisation to achieve its objectives (Hauseman, 2015). The style entails use of the technological assets of a company for administration and control of operations. Some of the most common digital assets include company websites, electronic information, and emails. For instance, giving out instructions and assigning tasks and responsibilities to employees via email is a form of digital leadership. Over the last thirty years, innovations and advancements in technology have caused digital migration of organisations (Libert, 2016). Today, digital leadership is being used as a source of competitive advantage (Kott, 2006).

## Traits of a Digital Leader

I believe creativity and innovation are the most significant traits of a digital leader. The business environment is greatly changing and today, digital leadership determines the competitiveness of an organisation. The leaders must therefore be creative and willing to incorporate new IT designs that meet the changing customer expectations (Hoving, 2007). They are consistently inventing new ways to use the different digital assets for the overall organisational benefit. Furthermore, they recognise that a single digital asset can serve multiple functions that are goal oriented[28]. Creativity and innovation helps the leaders keep up to date with the changing technologies and digital assets across organisations in the world.

Digital leaders are risk-takers and embrace the different operational, reputational and strategic perils that face their organisations. The leadership requires bold leaders who are not afraid to

[28] http://knowledge.wharton.upenn.edu/article/the-right-leadership-style-for-the-digital-age/ accessed on 01 May 2018.

take on digital risks such as threat of cyber terrorism, malware, system failures, loss of data, and hackers (Dunlap, 2013). They are opportunistic and aware of the changes in technology preferences (Trias, 2010). With the consistent changes, the leaders first launch and then learn, instead of first weighing in the risks (Hoving, 2007).

Communication is one of the main driving forces of digital leadership, and leaders must maintain interactions with the employees at all levels, and keep them informed on the current business operations and decision making processes (Ludorf, 2017). A digital leader is transparent and honest with the employees, and involves them in the decision making process. The leaders encourage workers to come up with new ideas, because innovation is a significant driving force of digital leadership. Interactions with employees do not have to be face to face, but can be maintained through emails, portals, websites and even social networking applications.

There are many risks facing digital leaders, including threat of cyber terrorism, system failures, information loss, and hacking (Reynolds, 2018). Digital leaders put the necessary measures in place to deal with the threats. For every innovation and digital asset, subsequent risk measures are implemented. For instance, they ensure appropriate network security measures, cyber security, and software encryptions are in place to prevent the risks (Hoffman, 2018). In addition, digital leaders warrant consistent update of digital assets to mitigate the risks.

## Comparison with other Leadership Styles

Digital leadership is different from other styles. The technique is about more than just following instructions and completing the assigned tasks and responsibilities. Instead, digital leadership is open and communicative, and involves all the stakeholders in the affairs of the organisation. It is more effective than any other managerial style (Schneider, 2016). Some of the most common leadership styles used in the ADF include transformational, autocratic, democratic, and transactional. The styles are based on the relationship of the leaders with the employees. On the contrary, digital leadership is based on how the project managers use the digital assets of the organisation. The main focus of digital leadership is innovations in

technology and inspiring members to embed creativity to reduce manual and repetitive tasks. While other leadership styles encourage face to face interactions between the management and the employees, digital leadership fosters frequent interactions with workers through digital assets. The style is focused on creativity and innovation, and therefore fosters the inputs of employees from all levels of the organisation.

Another difference is that in the other styles, the leaders are mostly individuals with many years of experience in the organisation. Moreover, the managers must meet certain qualifications that are not related to their technological know-how. On the contrary, in digital leadership, the main qualification of the leaders is their ability to integrate the different assets for transformation or modernisation. Digital leaders practice and understand the latest trends in technology and changes in stakeholder's expectations. While other leadership styles are focused on productivity and value maximisation through interdepartmental coordination, digital leadership emphases on value creation through digital assets. Another difference is in talent management and employment of new individuals in the organisation. Other leadership styles focus on employing skilled employees with qualifications that match preconceived organisational standards, whereas digital leadership looks for employees with technological qualifications and proven track record of successful project executions. They are mostly trained on how to explore and exploit digital assets for the different functions in the business.

Digital leaders are co-creators and collaborators. They actually take part in the innovation process, and contribute to making the change (Chilton, 2009). Other leadership styles are mostly about giving out instructions to employees, and supervising their activities to ensure that they are up to the company's goals and expectations. On the contrary, digital leaders take part in building a new product. They have the skills required to create something new, and collaborate with other employees and organisations, regardless of their level. They value the opinions and ideas of each member, and transform the ideas into something useful (King, 2017). The leaders frequently communicate with the workforce, and are always on the lookout for new technologies and trends.

## What other leadership styles complements Digital Leadership

Despite the importance of digital leadership, the style cannot be applicable in all types of organisations (Gilliam, 2017). Consequently, digital leadership works more effectively when complemented with other managerial styles (Hearsum, 2015). The leadership styles that can be used with digital leadership include laissez-faire, participatory, transactional, and transformational.

## Participatory Leadership

In participatory style, all the individuals in the organisation are involved in the decision making process (Bass, 1990). The technique is democratic in nature, and the opinions of every person are valued. The team members are motivated to work hard and improve their performance, because they feel valued and recognized. Although the leaders may have the final say on the best course of action to be undertaken, all opinions of employees are put into consideration. Digital leadership is a relatively new concept in organisations today, and due to its focus on digital assets and innovative technologies, some members of the organisation, especially the older generation, may feel left out. Therefore, using participatory leadership to engage everyone in digital transformation will be effective in addressing the needs of all (Hoving, 2007). People will become more aware of its importance in driving the organisation towards change, and no one will feel left out. In addition, the employees will be properly motivated, and in the end, they will contribute new ideas for innovative technologies.

## Transformational Leadership

Transformational leaders are role models, and inspire others to work hard and improve their performance through their actions. In digital leadership, the leaders have to inspire others by use of technological innovations and other digital assets. They are risk-takers, and are not afraid to integrate new technologies into the organisation (Singer, 2009). Additionally, they experiment with new technologies and use them for the advantage of the company. As a result, they have to inspire other to do the same, by applying transformational leadership.

## Laissez-faire Leadership

Laissez-faire leadership is a leadership style in which the leaders delegate duties to the employees (Bass, 1990). The technique is mostly applied where the individuals are highly skilled and competent in their work. The leaders trust the employees to get important work done by assigning them significant responsibilities. Digital leadership requires knowledge of digital assets, and the ability to use these technologies to drive organisational change (Gençera, 2016). Delegating significant duties to employees in digital organisation will easily get the job done, instead of doing all the work alone.

## Digital Leadership in the ADF

Digital leadership is applicable in social, economic, political and military settings. In the ADF, the leadership style has gained significance. Military team leaders in China are using digital assets to strengthen their teams resulting in rapid capability development and implementation (Hwang, 2017). With the use of social media, Russian military facilitate communication among team members and create groups where they can share their ideas and opinions regarding the service (Iasiello, 2017). Just like almost every military, they also use online content for professional military education and enlightenment (Schneider, 2016). Increased Internet connectivity and access in all ADF bases will greatly enhanced digital leadership. Through digital learning, the members gain significant information and skills on how to use a technology to their advantage in combat (Lyle, 2014). Additionally, digital leadership in the military has helped service members to be better prepared for the next generation warfare that is facilitated by technological innovations (Thibodeaux, 2013).

## Challenges

The increased digital transformation in organisations presents several challenges for the digital leaders. One of the biggest problems is the loss of organisational traditions and culture[29]. Digital leadership is concerned with integration of new technologies in all organisational

[29] https://www.torbenrick.eu/blog/technology/the-real-challenges-of-digitization-is-not-technology/ accessed on 01 May 2018.

functions. Online communication has replaced face to face interactions, which negatively influences relationships between the management and employees. In addition, generation differences and introduction of new technologies affects relationships between young and older generations (Daniel, 2008). Another challenge of digital leadership is the increased threat of cyber terrorism, especially within the five eyes nations (Ulmer, 2011). When organisations adopt digital technologies, they increase the threat of data hacking and cyber terrorism.

As innovations in technology increases, the innovative ways of stealing important corporate information also increases. Technology is driving businesses today, and has become a major source of competitive advantage. As organisations are transforming digitally, there has been a growing need for digital leaders across all aspects of the business (Franz, 2011). Above all developing and retaining "soft skills" will be very valuable in the digital age. From the moment children attend school for the first time, they should be introduced to the digital learning process. Generally, digital leaders can be developed when they are young, as long as they have the drive and resources necessary[30]. Coping with the technology also remains a constant challenge.

## Opportunities

Digital leadership presents many opportunities for both organisations and individuals. The style facilitates increased interactions with customers. Real-time and online transactions have significantly grown and as a result many organisations have embraced digital leadership. Organisations have more opportunities with the advent of social media and many digital platforms that facilitate human interactions (Khan, 2016). Increased communication is also an opportunity to improve the experience and produce capability tailored for requirement.

Through digital leadership, organisations can now minimise costs and enhance flexibility of operations. In the UK, there are many digital platforms used by businesses to communicate with the employees and integrate their services (Citrin, 2000). Digital leadership facilitates the

[30] http://blog.learnfasthq.com/jack-ma-teach-soft-skills-not-knowledge-to-compete-with-machines accessed on 01 May 2018.

monitoring of all organisational operations and improving efficiency of tasks and responsibilities.

## Maintaining Skills

Being a digital leader requires determination, patience, creativity and perseverance, especially because of the consistent changes in technology. With many organisations in Australia and across the world migrating into digital leadership, it is up to the leaders to drive change and inspire confidence among the employees (Bass, 1990). They have to maintain important skills needed to tackle any kind of challenge. Some of the most significant ways to maintain digital leadership skills in in ever-changing business environment include experimentation, willingness to learn, collaboration with other industries, internships, and self-study.

To maintain the skills, digital leaders must be willing to experiment. New innovations in technology and other digital assets are being invented on a regular basis. They must be willing to test out these technologies and integrate them into organisational functions. For instance, digital leaders are aware that social media has many roles to play, apart from enabling communications. Today, there are thousands of applications and social media features that leaders can use for the benefit of their organisations (Khan, 2016). Currently, Twitter, and Facebook have introduced applications that can detect the changing preferences of their customers. Digital leaders should embrace the changes and use the new technologies to strengthen relationships with the customers.

Another way to maintain digital leadership skills is through collaboration, both internally and externally. Digital leadership is all about embracing new technologies and digital assets and using them for organisational wellbeing. Within the organisation, all the departments must work together, and no one should be exempted in the decision making process. With every technology, the manager must understand how it can impact the whole organisation. The technologies should be used for bringing people together and share ideas. Digital assets foster communication and interdependency, and the leaders should use this to the company's benefit.

## Developing future Digital Leaders

Traditional leadership styles are being replaced by digital leadership. The leadership style is the future of organisations, and therefore, the making of a digital leader should begin at a young age. Digitally managing people is the future, and there is a growing need for more leaders. Digital managers develop from training, experiences in the organisation, technological skills and capabilities, among other factors. Developing such leaders requires patience, and collaboration with all levels of individuals in and out of the organisation.

A significant way to develop a digital leader is through training and mentorship programs. Digital leadership is all about using technology and other online assets for the wellbeing of the organisation. Smartphones have become so common in organisations that they are the main type of smart devices used for communication. While all employees have access to a smartphone, many do not use them for business purposes. Training of employees on how to effectively use digital devices for the company's advantage is an efficient way to make a digital leader. The technique entails creating awareness on the importance of digital transformation, and educating them on the many ways they can be used to improve productivity (Brophy, 2017). Through mentorship programs, the leaders are taught basic leadership aspects, skills, and how to relate with others in a digital world.

An individual who has been in the organisation for a long period of time will have witnessed many changes in technology and in the overall business environment (Zetlin, 2017). Experience makes people understand the extent to which business functions are being driven by technology. Consequently, an individual who has experience with different kinds of digital devices can make a good leader.

To fully integrate digital leadership in any organisations, a significant amount of resources is required (Metz, 2012). Firstly, there are huge costs of purchasing digital devices that include hardware, software and the Internet (connectivity, availability, reliability, security and speed). In addition, the organisation requires training facilities with frequent education.

## Next Generation Warfare

The next generation warfare is based on the use of sophisticated technologies. For instance, cyber wars have been on the rise and have a potential to completely replace traditional wars. The next generation of warfare will be mostly digitalized, and will destroy the ability of nations to go into war since it destroys the economy (Adams, 2012). The next generation warfare will be highly complex and will attack nations' cultures, economies and political aspects (Foster, 2014). Several militaries are setting aside funds to be used for modern weapons so as to be prepared for the future (Bailey, 2014). Terrorists and other organisations are devising new ways of distorting significant government organisations. They are mostly driven by revenge over something wronged to them in the past. Despite many cyber-security efforts by the military, the enemies can still device software and digital tools to steal information undetected (Alfonso, 2010).

With the threat of next generation warfare, the military should modernize its service, especially through digital leadership (Reddy, 2018). They should implement the latest technological tools in their services. For instance, the use of Artificial Intelligence technologies to detect cyber threats such as malware and unknown viruses can help prepare for the next generation warfare (Fadok, 2012).

In addition, training and mentorship programs to all the service members on the importance of integrating the contemporary technologies will help them be on the lookout for any threats. They should be made aware of the importance of consistently updating their devices, having antivirus protection programs, and regularly changing their passwords. Collaboration with other countries can greatly reduce threats posed by next generation warfare (Ash, 2011). Coordination helps governments pool their resources together against terror organisations and improve efficiency of operations.

## Recommendations

1. ADF digitisation strategy needs to be developed, communicated and executed, and of course constantly review to align with emerging key enabling technologies.

2. For effective digital leadership, there should be collaboration within and outside the organisation. Similarly, collaboration with industries, businesses and customers will provide in-depth insights on the trends in technology and the changing expectations (Hansen, et al 2008).

3. Digital training should be offered in all aspects of ADF. Awareness on the significance of digital leadership should be facilitated, and training on how to use emerging digital devices should offered to all members, regardless of their rank, age, qualifications or position (Shanley et al, 2009).

4. Digital leaders must be highly trained and exposed to industry through mandatory sabbatical or an industry experience. The leader must be willing to experiment their concepts and should not be afraid to take risks (Wortzel, 2014).

5. ADF should create a culture of digital literacy, where everyone must have digital competency to a certain degree (McLeod, 2015).

6. Digital leadership should be used with participatory, laissez-faire and transformative leadership for the maximum effectiveness and without losing soft skills.

7. ADF has the Australian Command and Staff College that trains future Commanding Officers and Military Advisors/Staff Officers, however there is a need to establish a dedicated *Centre for Digital Leadership* that focuses on emerging issues such as Cyber Security, Big Data Analytics, Artificial Intelligence, Machine Learning, etc (the US Army Command and General Staff College has its own Digital Leader Development Center[31]).

[31] http://usacac.academia.edu/Departments/Digital_Leader_Development_center accessed on 01 May 2018.

8. Considering strategic priorities, organisation needs, available human resources, and contemporary projects, the present organisation structure needs to be review and re-align among all services in order to synergise digital transformation.

## Conclusion

Digital leadership is the most effective leadership style for today's business environment. The leadership technique facilitates collaboration not only within the organisation but with other businesses, customers, suppliers and the community. The increased changes in technology have greatly shifted customer needs and expectations and digital leadership allows leaders at all levels to understand organisational needs (Hoving, 2007). The governance is unlike other leadership styles in that the leaders take part in organisational development and do not just give out instructions to their subordinates. Digital leadership facilitates communication and efficiency of operations and is more productive than other styles (McKee, 2005). The style is the future, and there is need to develop more leaders who can keep up with the changing trends in technology for the overall wellbeing of their organisations. Implementation of recommendations will greatly assist the ADF to enhance its digital leadership capability.

*It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is the most adaptable to change.*

Charles Darwin

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## THIRD PRIZE

# Increasing Ethical Efficacy: A Technique for Ethics and Leadership Training in the Australian Defence Force

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Defence forces, by their very nature, are exceptional training institutions. The primary mission of the Australian Defence Force (ADF) is "to defend Australia and its national interests." Accomplishing this requires ADF to continuously train for a multitude of contingencies. Much of this training is rightly focused on delivering lethal effects toward any would-be foe or providing assistance to allies through offensive, defensive, or stability operations. With such a large requirement, the most precious resource available to any Defence organisation often becomes time. There are only so many hours in the day, and training days in the year, that allow the ADF to prepare for such contingencies. Due to competing priorities in a compressed training space, leadership and ethics training, while recognized as important, is often relegated to a few mandatory sessions. When a commander is faced with whether to dedicate limited training hours to critical force preparedness requirements or leadership and ethics training, the former will often receive the higher priority, with an argument that leadership and ethics training will be achieved in conjunction with other tasks. However, by ensuring leader involvement, interesting and relevant subject matter, and active trainee participation, ethics training can be efficiently incorporated into any training regime to increase the ethical acumen of every soldier deploying in support of the ADF mission.

There are many historical examples that indicate the importance of ethics training in Defence. From a simple act of fraud or an inappropriate ethical decision in combat to organisational level "scandals," poor ethical decision making and leadership from junior soldiers through to commanders can have long-lasting strategic effects.

The 2011 ADF Personal Conduct Review states that military ethics are "a set of implicit rules and standards that define "what ought one to do" in operational or non-operational settings."

(Major General C.W. Orme AM) Similarly, laws are defined as "the system of rules which a particular country or community recognizes as regulating the actions of its members and which it may enforce by the imposition of penalties". (English Oxford Living Dictionaries) Thus, the difference in ethics and law is confusing at times. In military speak, as long as leaders make decision within the left of arc (laws) and right of arc (values) they cannot go wrong. These two 'arc limits' can provide excellent guidance to soldiers and their decisions. However, while laws are explicit in nature, ethics, due to their grounding in a set of values or principles, are not necessarily so clear. Often, individuals may find themselves in an ethical dilemma where "the course of action involves uncertainty, conflicting values….and where there are seemingly-equally valid reasons in support of two or more possible solutions to resolve the dilemma." (Major General C.W. Orme AM) Such dilemmas in leadership and ethics allow for excellent learning opportunities to truly grow in this space where they are forced to think, take a stand, and feel the consequences of their actions.

Many authors such as (Calvert, 2012) have identified that utilising Service Learning or Experiential Learning promotes leadership development by providing "crucible" moments to students. (Calvert, 2012) These "crucible" events are often difficult to replicate in training. However, developing effective instruction can allow soldiers to get as close as possible to an ethical or leadership problem without actually experiencing it themselves.

The first critical component of leadership and ethics training is leader presence. This presence goes beyond introducing the training session at the start. Although this may be appropriate at times, leaders at the appropriate level, need to be involved in the training through its entirety. There is a common phrase that "What interests my boss fascinates me." In ethics training this is certainly true. By being present and confirming to all subordinates that the content being delivered and discussed is important, it will pique the interest of those involved and focus their attention.

The second critical component of leadership and ethics training is developing interesting and relevant subject matter. Producing such material can seem difficult; however, this does not

have to be the case. By utlising case studies, vignettes, and prior soldier first-hand accounts, there are ample examples throughout recent and not-so-recent history that are ripe for utilisation as training tools. Exploiting such real-life experiences, especially if delivered from an individual involved, can provide a relevant background and context that artificial scenarios have difficulty achieving.

The final, and possibly most critical, component for developing meaningful leadership and ethics training is soldier involvement. PowerPoint presentations and lecture style briefings do not facilitate the best outcomes for ethics training. In leadership and ethics training the soldiers must be forced to choose a side, make a decision, and defend that position. This interaction ensures the training is much more similar to a "crucible moment" one experiences throughout their career and that will result in deep and meaningful learning.

Combining these three critical components of leadership and ethics training into a streamlined training event can often seem overwhelming; however, developing such training sessions can actually be quite simple. The technique recommended for consideration by the Australian Defence Force is called the Leader Challenge approach. This approach is "grounded in work done in the 1990s at West Point and in partnership with the Army Research Institute and Yale University, which included the "Tacit Knowledge for Military Leaders" study that culminated with a book, *Practical Intelligence in Everyday Life*."(Company Command Team) This method is described in detail below, but involves "small-group discussion techniques, including rotation of participants and use of easel paper, informed by experiential learning theory and the World Café' technique for conversations (*The World Café: Shaping Our Futures Through Conversations That Matter)*. The approach has been iteratively tested and improved" over more than 15 years within several US Army training institutions. (Company Command Team)

A standard Leader Challenge training event includes four "rounds" and requires proper venue and leader preparation. The venue selected should ideally have one table for every four trainees with five chairs per table. Each table has a large piece of easel paper in the centre for

note-taking and the participants are all gathered around the individual tables with an assigned mentor per table. An example of this is depicted in Figure 1 below.

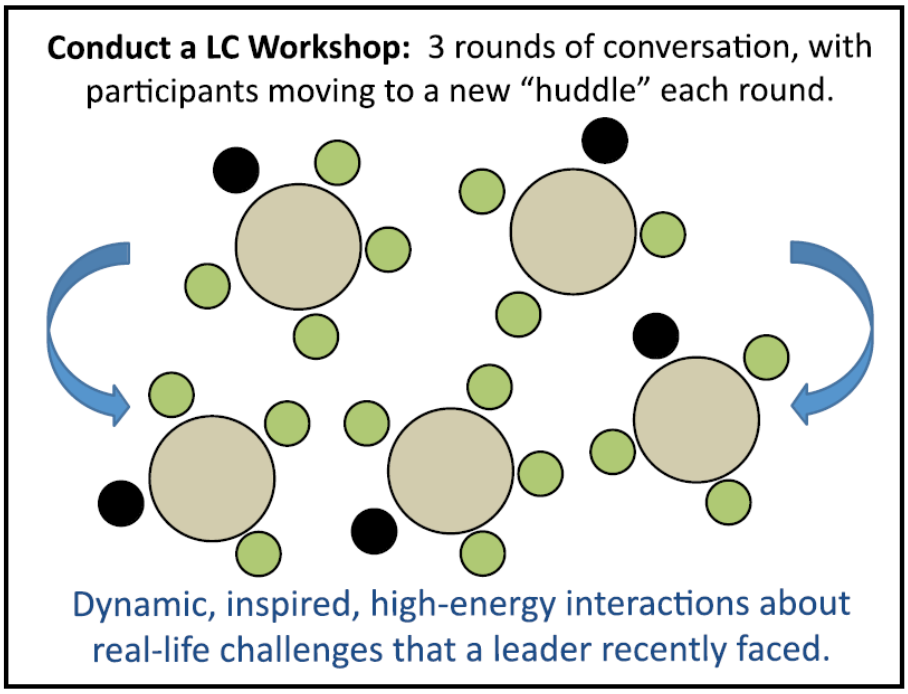


Figure 1: Leader Challenge table set up. Mentors are black dots, trainees are green

The mentors utilised are very important. These should be leaders of the organisation and can be of various ranks, so long as they are able to generate discussion and understand the training outcomes of the particular session. As an example, a sub-unit Leader Challenge may involve the Company Commander, Platoon Commanders, and Platoon Sergeants as mentors with Section Commanders, Section 2ICs, and soldiers as the trainees. As a training institution example, at the School of Infantry, this training is conducted with the ROBC Course during the start and end of the course where the CO SOI, Sub-unit Commanders, and RSMs are the mentors.

After all trainees are seated, Round 1 begins with either a video or vignette of an actual event that is played to set the scene and immediately puts the individual in the scenario in a difficult leadership or ethical challenge. The mentors of each table then discuss the current situation, considerations, and possible courses of action based on the information available. Key to this

is that the mentor at the table is a leader of the organisation and that the leader forces each participant at the table to take a stand and articulate their position. The mentor can play devil's advocate and many other roles to stimulate the conversation, but the goal is to guide the conversation and ensure that each trainee is an active participant. As ideas are developed, the mentor has the trainees write specific ideas or thoughts on the large paper for future discussion in later rounds. This first round is typically ten minutes, after which time the lead facilitator instructs all trainees to stand up and independently move to a new mentor table. All mentors remain seated at their table.

After all trainees are seated at their second table, Round 2 begins. During Round 2, the mentor at each table uses one to two minutes to brief in the newcomers on what was last discussed at that table to cross-level all participants. The lead facilitator then plays another video clip or reads additional information from the vignette that provides further information that is relevant to the leader challenge or ethical decision at hand. After this, the mentor facilitates further discussion based on the new information. Each mentor is provided guiding questions to facilitate each round and ensure that the participants are forced into decisions or to think about situations from multiple points of view. A common thread may be to have the trainees argue for a reason that is contrary to what the group is currently thinking, even if they disagree.

Round 3 is executed in the same manner as previous rounds. During Round 4 the soldiers will move a final time and conduct a summary of major take-aways from the training event. During the 4$^{th}$ Round the lead facilitator will have individuals speak for the group to present their one major take-away from the session and provide a closing summary for the event. The entire training requires only one hour that has a training value equivalent to many hours of other training methods.

The development of interesting and relevant content is exceptionally important to the conduct of such activities. Defence can assist in this development by searching for volunteers at educational institutions (OTW, COAC, ADC, etc.) and recording narrations of real-life content

that achieves a particular training outcome desired by that institution. A dramatic way to accomplish this, is by having individuals that actually went through a leadership or ethical challenge in their career narrate the scenario themselves. If uncomfortable doing so, voice-overs and facial distortion techniques can be utilised. Additionally, using stories from veterans that are no longer in service can also be very powerful as these individuals may be more willing to share the raw details of an account since they are no longer in the service.

Conducting leadership and ethics training with the Leader Challenge approach allows for the three critical components of leadership and ethics training to be met. The mentors at each table and the lead facilitator provide the appropriate leader presence and engagement for each session and are simultaneously able to discuss with their subordinates these important issues that rarely arise in day-to-day interaction. The vignettes and scenarios, if appropriately selected and presented, will involve material that is interesting and truly makes the participants think and feel deeply on a particular topic. Lastly, by moving from table to table and being made to take a stand on issues, the participants can actively engage with their mentor and their new group during each rotation. An individual that may not have felt confident during Round 1 can utilise an argument or line of reasoning from an individual from that round and use it for future debate in other rounds. Lastly, training in this manner is accomplished in a single hour and, from many iterations of feedback, provides a very good learning outcome.

The foundation exists to develop the Leader Challenge approach within the ADF. By developing and utilising this method for leadership and ethics training, the ADF can further increase the leadership and ethical efficacy across the force in a reduced timeframe, to better prepare all soldiers for any future contingency.

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CATEGORY THREE

FIRST PRIZE

# Armament Engineering in the Australian Defence Organisation: A Profession Founded on Loving Our Enemies

**Author: Simon Perdriau**

*'Love your enemies,' taught Jesus Christ to his followers in first-century Palestine, 'and pray for those who persecute you.'*[32] These words no longer sound scandalous, having become clichéd to modern ears: but when one considers the persecution Jews had suffered at the hands of the Romans, it is clear that when spoken in their original context, they were as controversial as they would be in the same region today.

This may seem a strange calling for an Armament Engineer to aspire to. Yet, I contend that state of technology in the twenty-first century has placed such an array of awful tools at humanity's disposal, that Armament Engineers face grave ethical questions about how they will treat their enemies. Inhumane and torturous methods of warfare have long been outlawed under the Hague Conventions of 1899 and 1907; the Australia Defence Organisation can be proud to be one very few nations which has never used them. As these forms of inhumane warfare see a resurgence in the twenty-first century, Australian Armament Engineers must continue to uphold the nobility of their profession by refusing to use them, ensuring that the wars we fight, though necessary, remain as humane as possible. To do so, Australian Armament Engineers must continue to develop Conventional Weapons which are so lethal, so accurate, and so effective, that the Australian Defence Force not only has no need to resort to inhumane weapons – but also has the capability to defeat and overthrow regimes that do.

## The Laws of War

The recognition that 'some forms of injuring can be considered acceptable while others are not,' arose at least as early as 1868, when the Declaration of St. Petersburg stated 'limits at

[32] (Gospel of Matthew, 2011) Chapter 5, Verse 44, p. 970

which the necessities of war ought to yield to the requirement of humanity.'[33] By 1907, the Hague Conventions, created by an international body of delegations, had agreed that:

*Art, 23. It is especially forbidden (a) to employ poison or poisoned weapons… (e) to employ arms, projectiles, or material calculated to cause unnecessary suffering.*[34]

The infliction of 'unnecessary suffering' is the first and most crucial point of distinction between humane and inhumane methods of warfare. Armaments, by their very nature, must be lethal in order to be effective; but the Hague Conventions codified the unspoken, yet longstanding, notion that this should involve as little physical pain for the participants as possible. This notion was a part of the concept of Honour which had governed militaries across the world for centuries: it held that enemies were nevertheless also human, worthy of respect, and that violence against them ought to spring not from sadism but military necessity.

The Convention was later refined to be more explicit, and removed the requirement for intentionality – weapons causing unnecessary suffering were considered inappropriate by nature, regardless of intent:

*Art. 35 – Basic rules: 2. It is prohibited to employ weapons, projectiles and material and methods of warfare of a nature to cause superfluous injury or unnecessary suffering.*[35]

The second reason a weapon would be considered inhumane under the Hague Conventions is its inability to distinguish between soldiers and civilians, and respect for this distinction was considered fundamental to the conduct of a legitimate war:

*Art. 48 – Basic rule: In order to ensure respect for and protection of the civilian population and civilian objects, the Parties to the conflict shall at all times distinguish between the civilian*

[33] (Rappert & Moyes, 2009) p. 238
[34] (International Committee of the Red Cross, 1989) p. 22
[35] (International Committee of the Red Cross, 1989) p. 28

*population and combatants and between civilian objects and military objectives and accordingly shall direct their operations only against military objectives.*[36]

The third criteria used by the Hague Conventions to identify inhumane weapons were those whose effects could be felt long after the battle had passed:

*Art. 35 – Basic rule 3. It is prohibited to employ methods or means of warfare which are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment.*[37]

This is not only for the sake of nature itself; if a weapon damages or contaminates an environment such that a risk to inhabitants remains after the conflict has ended, this is also grounds for the weapon to be considered inhumane.

## Mechanisms of Action

The last century has seen the coming-of-age of a suite of torturous technologies: Chemical, Biological, Radiological and Nuclear weapons, usually abbreviated to CBRN. They have also become known collectively as 'Weapons of Mass Destruction', though this term can be misleading, since it does not refer to the mechanism of action which distinguishes them from conventional weapons – and for which they are classified as inhumane.

### Chemical Weapons

Chemical Weapons came to prominence during the First World War where (despite being banned) they saw widespread usage. The chemicals employed were not developed as weapons, but had legitimate uses: Chlorine (bleach), Phosgene (pharmaceutical production), and Hydrogen Cyanide (electroplating).[38] Nevertheless, when released in high concentrations in confined trenches of the First World War, the consequences were horrific:

[36] (International Committee of the Red Cross, 1989) p. 31
[37] (International Committee of the Red Cross, 1989) p. 28
[38] (Organisation for the Prohibition of Chemical Weapons, 2018)

> *'GAS!' The word quickly passed around… Suddenly, through the communication trench came rushing a few khaki-clad figures. Their eyes glaring out of their heads, their hands tearing at their throats… choking and gasping, whilst those following trampled over them. If ever men were raving mad with terror, these men were… No words of mine can ever describe my feelings as we inhaled the first mouthful. We choked, spat and coughed; my lungs felt as though they were being burnt out, and were going to burst. Red-hot needles were being thrust into my eyes.*[39]

These harrowing memoirs describe the effects of human exposure to choking and blister agents, which burn the skin, eyes and respiratory tract, causing choking, blindness, extreme physical pain and, after prolonged exposure, death.

Later in the war, when reinforcements arrived from other theatres unaccustomed to this new evil, Philip Gibbs observed:

> *'German shell-fire was coming… But the gas was worse. Gasmasks seemed a joke to the groups of Australians trying on the headgear in the fields, and changing themselves into obscene spectres . . . But one man watching them gave a shudder and said, 'It's a pity such splendid boys should have to risk this foul way of death.''*[40]

The blistering of airways and eyes is sadly not all chemical weapons are capable of. Nerve Agents, developed later specifically for use against humans, have flown into the public consciousness over the past few years due to the Syria War[41], the assassinations of Kim Jong-nam[42], and the attempted assassination of former intelligence agent Sergei Skripal.[43]

Nerve agents work by interfering with the signals sent from the brain to muscles and glands. Normally, signals travel from the brain via nerves, until they reach the interface point with a muscle or gland (a 'synapse'). Here, Acetylchlorine is formed, which 'crosses the gap' and

[39] (Hart, 2015) pp. 142-143
[40] (Gibbs, 1920) p. 123
[41] (News BBC, 2017)
[42] (News BBC, 2017)

passes the signal from the nerve to the muscle or gland's receptor. This causes the muscle to contract or gland to secrete. Afterwards, the Acetylchlorine is broken down and cleared away by an enzyme, called Acetylchlorine-terase.

Nerve agents prevent the production of Acetylchlorine-terase, which means that the signal sent from the brain to the muscle or gland never ceases. Hence, when exposed to a nerve agent, a person's muscles and glands all begin to operate: immediately – simultaneously – and continuously. The eyes water. The saliva flows. Mucous pours into the victim's lungs. They begin to gag and cough as they choke on their own bodily fluids. They double over with Gastro-intestinal cramps while simultaneously vomiting. Convulsions begin. Involuntary and continues defecation, twinned with urination, intensifies the anguish and ensures the body has been defiled regardless of whether the enemy does so or not. After the most agonising fifteen minutes of their life, the victim dies by suffocation, either because their lungs are full of bodily fluid or their respiratory muscles have lost the ability to expand.[44]

Even surviving exposure to chemical weapons does not mean the victim goes on unaffected. A study conducted with 220 patients exposed to Chemical Weapons during the Iraq-Iran war revealed that seven years later, all of them still suffered obstructed breathing, while six were still coughing up blood.[45]

<u>Biological Weapons</u>

Biological Warfare refers to the weaponisation of disease-producing agents. Though this reaches back centuries – from poisoning wells to flinging dead animals over city walls – the scale and impact of such methods remained relatively limited until the late twentieth century. Since then, scientific enhancements to the virulence and severity of weaponised diseases have transformed Biological Warfare from a desperate tactic to very real threat. This includes:

▪ Bacteria (e.g., anthrax, brucellosis, tularemia, plague)

[43] (News BBC, 2018)
[44] (Organisation for the Prohibition of Chemical Weapons, 2018)
[45] (Bijani & Moghadamnia, 2002) p. 423

- Rickettsiae (Typhus and Q Fever)
- Viruses (Encephalitis)
- Fungi: (rice blast, cereal rust, wheat smut, potato blight)
- Toxins (Poisons, such as Ricin)[46]

When compared with other weapons, the less acute nature of biological weapons could lend them a beguiling harmlessness; yet, they are perhaps the most terrifying of the CBRN suite. The ability of disease to spread means that humanitarian aid workers, civilian populations, and children will likely be amongst the victims; of whom the latter will suffer most severely. Such diseases are also unrestrained by geopolitical borders, and thus, neutral and uninvolved countries – bystanders of any kind – are highly likely to be affected.

Kortepeter & Parker describe 'if obtained and intentionally released, smallpox could cause a public health catastrophe because of its communicability. Even a single case could lead to 10 to 20 others. It is estimated that no more than 20% of the population has any immunity from prior vaccination. There is no acceptable treatment… Plague, like smallpox and anthrax, can decimate a population (as in Europe in the Middle Ages).[47]

If the Bubonic Plague of the pre-industrial, foot-slogging society of the fourteenth century was enough to decimate the European continent, the consequences of releasing a scientifically-enhanced plague in the twenty-first century, where international travel is ubiquitous, is truly terrifying. For this reason, Biological weapons are considered not just inhumane, but a threat to humanity's survival.

<u>Radiological and Nuclear Weaponry</u>

Though Nuclear Weapons are known for their supremely powerful blasts capable of levelling cities, they are also considered inhumane under the Hague Conventions for a much more insidious reason – the emission of copious gamma radiation which causes blood cancer (Leukaemia), deformity, and death.

[46] (Schneider, 2018)
[47] (Kortepeter & Parker, 1999) p. 526

This violates all three of the basic principles laid down by the Hague Conventions: contaminating the environment in which they are used, causing unnecessary suffering, to civilians as well as soldiers, for many decades afterwards. Despite American efforts to supress it, an Australian journalist broke this story to the world when he visited Hiroshima in 1945:

> *In these hospitals I found people who, when the bomb fell, suffered absolutely no injuries, but now are dying from the uncanny after-effect. For no apparent reason their health began to fail. They lost appetite. Their hair fell out. Bluish spots appeared on their bodies. …the bleeding began from the ears, nose and mouth. At first the doctors told me they thought these were the symptoms of general debility. They gave their patients vitamin A injections. The results were horrible. The flesh started rotting away from the hole caused by the injection of the needle. And in every case the victim died… I write this as a warning to the world. In Hiroshima, 30 days after the first atomic bomb destroyed the city and shook the world, people are still dying, mysteriously and horribly — people who were uninjured by the cataclysm — from an unknown something which I can only describe as atomic plague.*[48]

Radiological Weapons

Radiological Weapons possess the same dangers and hazards as Nuclear Weapons, but the emphasis in this case is reversed. Radiological Weapons use a relatively small blast to propel highly virulent radiation sources across a large area, and are therefore considered even more heinous than Nuclear Weapons – since Radiation Poisoning is not an unfortunate side effect but indeed the primary purpose of the weapon.

Leo Szilard, one of the founders of the Manhattan Project and inventors of the Atomic Bomb, was so repulsed by the cancerous potential of Radiological Weapons, such as the Cobalt Bomb, that he embarked on a lifelong crusade to prevent their development.[49]

[48] (Smith, et al., 2015)
[49] (Szilárd, 1987)

## Conventional Weapons – A Humane Alternative

It may counterintuitive to describe any weapon as humane. Yet, when compared to the horrors of CBRN warfare, it immediately becomes clear that Conventional weapons (those deriving their killing power from kinetic energy, such as bullets, shells, missiles, torpedoes and bombs) induce far less suffering for their victims while achieving similar effectiveness. In fact, Conventional Weapons are often more acute, and therefore more immediately effective, than CBRN alternatives – yet this immediacy also means they are short-lived, and thus better confined to the battlefield in space and time; a significant benefit to civilian and future populations.

### Limiting Physical Pain

Under the Hague Conventions, the infliction of *unnecessary suffering* is a key distinguisher between humane and inhumane methods of warfare. By this measure, Conventional Weapons are far more humane to their targets than CBRN alternatives. Whereas death from exposure to Blister or Nerve Agents is usually preceded by a quarter-hour of intense torture, the fraction of a second it takes for a bullet to kill or explosion to detonate spares the victim this agony – seldom even giving them time to register it.

Though astute observers will point out that Conventional Weapons do have the ability to wound without killing, causing physical pain, even then the nature of the wound is more conducive to treatment and recovery than CBRN effects. Shrapnel and physical trauma can be accurately identified, located, and treated by physicians. The victim is spared the agony of years of fighting Leukaemia, or a mysterious and scientifically-enhanced plague.

Here, again, Armament Engineers have the opportunity to show compassion towards their enemies – not just by choosing Conventional Weapons, but by designing and optimising munitions to kill outright rather than through horrific maiming. Indeed, one of the distinguishing features between explosives made by terrorists and Arms manufacturers is that the former often include nails, ball bearing, and other shrapnel which will not kill the victim but cause them extreme physical pain.

Limited in Time

The extreme brevity of the explosive mechanism of Conventional Weapons does not just benefit those directly involved in the conflict, but those who will come after. The Nuclear Fallout in Hiroshima and Nagasaki meant that children born decades after the event were still affected by it; if Conventional Weapons have been successfully detonated, those that come after can be assured there is no remaining risk.

Limited in Space

Another great advantage of Conventional Weapons is that they are limited in their spatial area of effect – certainly compared to Biological weapons, which have the capacity to spread across the world. The blast radius of a conventional explosive-powered bomb is not only relatively small (ranging from a few metres to a maximum of 1-2 kilometres) but also calculable and reasonably predictable. One of the primary jobs of Armament/Explosive Ordnance Engineers is to calculate and determine the blast radius of weapons, both to achieve the required effect, and to protect those who are not intended as targets.

Ability to Distinguish Between Soldiers and Civilians

The limited area of effect of conventional weapons, in both space and time, also lends them a crucial distinction – the ability to be accurately targeted. Much of the development in Armament Engineering over the past half-century has been in refining the methods and accuracy of targeting – whether through radar, sonar, or live-streaming. Modern munitions such as missiles can be delivered with incredible accuracy, onto strategically identified targets, eliminating the need for indiscriminate bombardment. Incredibly, even Artillery and Naval Guns – the least guided of all modern munitions – nevertheless measure their accuracy in metres when fired over ranges of dozens of kilometres.

Of course, Conventional Weapons can still be intentionally guided onto civilian targets, and the ethical burden continues from engineer to field operator to employ these weapons responsibly. Nevertheless, conventional weapons still have the advantage that, unlike Biological Weapons, they are not at risk of being spread from the target to others – for which reason Biological Weapons directly contravene Article 48 of the Hague Conventions.

Contamination

Finally, another great advantage of conventional weapons is that they do not contaminate the environment with cancerous radiation or biological threats. While Anthrax can remain in an environment for decades,[50] the damage done by conventional weapons is immediately apparent – there are no remaining threats which might endanger emergency relief, aid work, and a return to living conditions. The future inhabitants can continue their lives without increased risk of cancer and disease.

On this issue, a strong counterpoint would be the issue of unexploded ordnance, which poses an enduring risk to soldiers and civilians alike. However, it is important to note that this usually arises from either unscrupulous or incompetent design on the part of the engineer. An example is the design and use of Cluster Munitions, whose hundreds of small charges cover a large area and often fail to explode. Far from undermine the distinction between Conventional and CBRN Weapons, this test case shows the principle is consistent: since Cluster Munitions exhibit many of the hallmarks of the CBRN Weapons (an enduring risk to civilians after cessation of hostilities; wide areas of effect that cannot be targeted or distinguish between targets[51]) they have been similarly classed as inhumane for over a century (beginning in 1868 with the St. Petersburg Declaration[52]) and continue to be prohibited under the Convention on Cluster Munitions[53], of which Australia (unlike some western powers) is a proud signatory.

## The Commission

It is therefore vital that Australian Armament Engineers continue to lead by example by refusing to develop inhumane weapons. They have a proud history of doing so, as chairs of the Australia Group (which opposes the proliferation of Chemical and Biological Weapons[54]), authors of the Australian Treaty Against Bioweapons[55], and signatories to the Convention on

[50] (Kortepeter & Parker, 1999) p. 525
[51] (Borrie, 2009) pp. 8-9
[52] (International Committee of the Red Cross, 1989) p. 159
[53] (The Convention on Cluster Munitions, 2018)
[54] (Government of Australia, 2007)
[55] (Department of Foreign Affairs, 1977)

Cluster Munitions, Biological Weapons Convention, and Organisation for the Prohibition of Chemical Weapons.

If this tradition is to be upheld, we must cease to see Armament Engineers as purely technical specialists, for their work no longer operates purely in the scientific sphere. Leo Szilárd, co-creator of the Nuclear Bomb, recognised this when he said:

> *As far as I can see, I am not particularly qualified to speak about the problem of peace. I am a scientist and science, which has created the bomb and confronted the world with a problem, has no solution to offer to this problem.*[56]

Armament Engineers in the Australian Defence Organisation ought therefore to receive training in Ethics and Leadership as part of their profession. This is not a new concept; it is a return to the origins of the Engineering profession. As those who use scientific discoveries to implement change in the world, Engineers have always grappled with the ethical implications of their work. Historically, Engineers were 'Renaissance men' and 'natural philosophers', as versed in philosophy and ethics as they were in mathematics and physics. The overspecialisation of technical professionals is a distinctly modern tragedy which needs to be redressed. In the words of James Fallows:

> *The most important task in defence is the one most likely to be overlooked, since it lies in the realm of values and character rather than in quantities which can be represented on charts.*[57]

It is telling that it was times of great desperation, such as the Second World War, that brought Australia closest to considering CBRN Weapons. Though Australian Armament Engineers can be proud of never having succumbed to this temptation, it is one which will return as these forms of warfare see a resurgence in the 20th Century. Good leadership by Australian Armament

[56] (Szilárd, 1987) p7
[57] (Jans, et al., 2013) p. iv

Engineers will require resisting pressure from superiors (and subordinates) to develop and employ CBRN Weapons – even in desperate situations.

The task does not end, therefore, with leading by example. In a world where many rogue states, and even allies, are making use of CBRN warfare, Australian Armament Engineers must continue to develop Conventional Weapons which are so lethal, so accurate, and so effective, that the Australian Defence Force not only has no need to resort to CBRN weapons – but also has the capability to defeat and bring to justice regimes that do.

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SECOND PRIZE

# The ethical issue of the use of Unmanned Systems and Strong Artificial Intelligent robotic systems in warfare

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## Background

The increasing use of unmanned systems (UVs) and the potential use of Strong Artificial Intelligence (SAI) robotic systems in warfare raise a number of emerging ethical issues. The application of this advanced technology by the military is controversial. Some believe that this technology will be beneficial to Defence, while others have the view that many negative consequences may arise from its use. Neglecting these hidden ethical issues may lead to serious consequences and subsequent risk of reputational damage. It is imperative that ethical considerations are reviewed carefully before autonomous and SAI systems are fully integrated within existing Defence and warfare frameworks.

## Unmanned Vehicle

### Trust

"*An unmanned aerial vehicle is a pilotless aircraft, in the sense of Article 8 of the Convention on International Civil Aviation, which is flown without a pilot-in-command on-board and is either remotely and fully controlled from another place (ground, another aircraft, space) or programmed and fully autonomous*."[58]

The remote controlled unmanned systems may be as small as a nano-hummingbird[59] and light-weight Quad-copters, or as large as the semiautonomous UAS-MQ-4C Triton. The use of unmanned aerial vehicles (UAVs) by the world's militaries has increased significantly over the past two decades. The potential for military applications utilising UAVs has been recognised for

[58] International Civil Aviation Organization, 2011
[59] Stanley J & Crump C, 2011

over 100 years. In 1918, a UAV successfully flew for the first time when Curtiss Aeroplanes tested an early prototype of a flying "torpedo"[60]. To ensure that the Australian Defence Force possesses the highest levels of military capability, the Australian government is introducing the high altitude MQ-4C Triton unmanned aircraft to augment existing aerial systems.[61]

Small UAVs, commonly called 'drones', are used extensively in civilian use for private and commercial purposes. Farmers use drones to distribute insects to combat agricultural pests[62]. The use of drones not only has a significant impact on costs and labour savings, but also increases the efficiency of production due to their smaller size and portability. Drones are also being introduced as urban delivery vehicles by large companies such as Google and Amazon. Amazon alone has spent almost 9 million dollars to lobby the government to review regulation to allow drones to be used for this purpose[63]. Similarly, car makers have invested heavily to develop autonomous vehicles that are expected to displace the human driver over the next few decades. Driverless cars were being tested on South Australian roads by 2017[64], while approval was granted in February 2018 for autonomous vehicles to be test driven on Californian public roads[65].

The use of unmanned vehicle technology is expected to become more economical, accurate, efficient and productive, with fewer complications arising from human factors. It is inevitable that this advanced technology will soon be part of our lives and an essential military strategic capability to our defence. The question is: "Can we trust a machine acting on its own accord when its primary mission is to kill?" Trust is an important concept to consider. When trust is given, there is an expectation that events and outcomes are delivered in a way that has benefit to humankind, and that harmful effects will be eliminated or minimised. Decision-making is

[60] Weibel, R.E. and Hansman, R.J., 2006
[61] Australian Defence White Paper, 2016
[62] Drones and Bugs, ABC education, 2015
[63] Drone Safety vs Innovation, ABC education, 2016
[64] Hawkins, A.J, "California green lights fully driverless cars for testing on public roads". The Verge, last updated Feb 26, 2016
[65] ABC News, "Driverless vehicle technology to be tested at Adelaide Airport, Flinders University" *ABC News*, last updated March 21, 2018

based on a collection of known evidence and certain expectations[66]. In other words, the use of advanced technology needs to provide a feeling of safety and security so that humans do not feel threatened by the uncertainties of new systems and constrained by their own suspicions. In this regard, three trust issues are relevant to the increased use of unmanned vehicles. These are:

1) The reliability of remote control system of UVs;
2) The predictability of cyber system; and
3) The responsibility of the owner.

For example, as a semi-autonomous system, the MQ-4C Triton can operate on its own once the operator presets the task. The trust depends on the performance of both the operator and the UAV. The attitude of the operators towards their assigned task remains an important component to minimize distrust. The higher the capability and knowledge of the operator, the higher the trust is placed on the process. The ethics and value system of the commander enhances the trust relationship between human and machine. The reliability of the Triton's engineering, on the other hand, is an important trust signal to the operator.

Trust is often taken for granted. Unless an unexpected event arouses a feeling of distrust, the biggest advantage of UVs could also be its fatal weakness. A recent accident in Tempe, Arizona involving a driverless Uber vehicle highlights these concerns.[67] Autonomous vehicles are intended to ensure driving safety, but in this case the system was responsible for the accident that occurred. This fatal accident prompted an immediate review of the technology. The accident was seemingly caused by a malfunctioning lidar sensor that measures the distance to nearby objects[68]. This raises concerns about other systems used in driverless car technology as it is impossible to envision all possible scenarios, including deliberate actions caused by system attacks by hackers using malicious code or viruses.

[66] Hosking. G, 2014
[67] Bliss. L, "Fatal Uber Crash Raises Red Flags About Self-Driving Safety". Citylab, last updated Mar 206, 2018
[68] Griggs. T, Wakabayashi. D, 2018

## Moral concerns

Morals and ethics are interchangeable terms most of the time. The study of ethics is a study of moral philosophy and how morality functions in real life. Ethics is about "*what is right, fair, just or good, what we ought to do*"[69]. "*Aristotle regarded ethics as 'an inner dwelling place', or the 'inner character'*."[70] Understanding ethics and the issues of moral leadership is a crucial prerequisite for operating UAVs in military roles. A failure to apply moral and ethical standards in conducting missions with UAVs may have potentially serious consequences for Defence personnel, the government and the broader public.

Operators can only function at their best capacity when they have total trust in their commander. In being able to identify a moral objective, they are better motivated to retain their commitment to the mission. Given that militaries conduct their operations on behalf of government policy-makers, a violation of the moral code can be perceived by the public as the government's own failure of moral responsibilities.

There are many causes for leaders' conflicts in morality when undertaking their orders.
These could be being subject to their own ambitions for personal success, or their failure to speak up when they believe a decision is wrong, or being careless with the truth regarding small matters. To avoid such moral conflicts, leaders are required to overcome their own personal dilemmas in the decision-making process. They need to be honest and straightforward to their subordinates. They also need to recognise, articulate and uphold these high standards by demonstrating them in their personal, as well as professional, lives.

For UVs to be effective, it requires both an operator with sound ethical judgement and reliable software that provides contingent responses in challenging environments. As such, the ethical framework of the vehicle's provider is also subject to ethical considerations. Transparency and close involvement with military personnel allows large-scale engineering providers to meet the

[69] N Preston, 2007
[70] M. Curtis, 2007

required level of dependability. The provider must be flexible in the development process to allow for adjustments and modifications be made to suit capability requirements. This means that the integrity of the provider may need to be examined before the partnership can be established. For example, the provider should ensure their workforce is well educated and highly trained to perform their given tasks. The risk of procuring materiel from unethical providers can potentially lead to financial loss, damage of reputation, and risk to military personnel.

Rules and codes can implemented to mitigate potential loss caused by humans, but can morality be coded into a machine? One of the major issues faced by software developers is "*the difficulty of accurately describing the relationship between critical elements of the requirement*"[71]. The most recent fatal incident when an Uber killed a pedestrian in the USA brings to mind the moral dilemma of the trolley theory. This theory demonstrates the inability of humans to make moral decisions in life-threatening situations. A trolley car rushes towards five people on a track. You could pull a lever to divert the trolley on to another track where only one person is standing. The dilemma relates to the three options a person has to choose:

1) Allow the trolley to continue towards the five people;
2) Pull the lever and divert the trolley towards the second track; and
3) Do not intervene at all.

What is the right thing to do and what ought to be done? The decision to pull the lever to kill five or to kill one? Or is it better to stand by and do nothing, and relinquish responsibility? How would a machine be able to respond to the same situation? If human beings have difficulty in deciding the best solution to this dilemma, how do they code this into a machine to make the right decision? Should the machine behave differently if the person on track B is a child, or pregnant or elderly? Would it be right to kill the five instead of one person? Who can

[71] M, Robin, C, Brian, 2005

determine if five are worth more than one? The judge? The software developer? Or the owner?

## Accountability, responsibility, law

*"Unmanned systems that are capable of autonomously operating their weapons without direct human authorization"*[72]. It is an appealing concept to have UVs operate autonomously and undertake missions, but questions remain about who takes responsibility for accidents.

Consideration of the legal ramifications of preventable events involving autonomous vehicles must be taken into account. Existing laws may be insufficient when damage is caused by this new technology. "*Unmanned systems with kill authority would not have the same human capability to differentiate situations in which lethal force is necessary versus situations in which it could be avoided."*[73] Humankind has varying value systems and worldviews that may be satisfactory for certain situations, but may falter when other variables are added or changed. These situations may perplex human beings defined by their moral frameworks, but an autonomous unmanned system may find the solution more straightforward. For example, what would happen if the machine determined the best course of action was incompatible with human notions of an ethical outcome?

Regulatory frameworks are used to identify and manage accountability when things go wrong. One of the key systems that underpin the stability of modern life is the rule of law.

"[a] *lack of regulations is an impediment to achieving the full potential public benefit that UAVs may offer."*[74] The establishment of regulations on unmanned vehicles in conjunction with a clear chain of command is crucial for UVs to operate freely within the established system. UVs are still in the development stage, full of unpredictable contingencies and potential conflict. Without a set of regulations and a legitimate authority to enforce them, the performance of UVs can easily become a chaotic exercise. The benefit of UVs regulation/law

[72] Coyle, E, p5
[73] Coyle, E, p5
[74] Weibel, R.E. and Hansman, R.J., 2006

strengthens the predictability of UVs performance, reinforces trust and promotes ethical conduct.

Coyle suggested a few ways to address ethical issues which could be relevant to UV management in a defence context. These include applying a specific code of ethics for those engineers involved in developing UV systems, ensuring graduates in the field adhere to ethical principles relevant to their profession, incorporate an understanding of ethics within the curriculum for all those associated with UV usage (designers, users, operators).[75] This demonstrates the extent in which notions of ethics and moral principles must be applied to new technologies that have previously required human interventions and decision-making processes.

## Strong Artificial Intelligent (SAI) Robotic System

### Trust

The speed of change in advanced technology has led to the rapid development of SAI robots as a plausible military force. An SAI robotic system, regardless of its shape and form, may mimic thought and emulate human decision-making processes. This provides a degree of independence from direct human control. Its distinguishing feature from other automatic or autonomous systems is that it will be able to perform reasoning, problem solving and decision-making tasks. It has the ability to sense, be self-aware and self-conscious, have its own value system and worldview and ultimately surpass the cognitive capabilities of its human creators. This cognitive functionality is based on the learning and experiences it gains through interactions with the external environment.

The issues arising from driverless cars have given rise to serious concerns relating to trust of SAI systems. Can we trust the use of SAI in warfare as it raises questions about whether it is beneficial to humanity, or works against it? True SAI does not yet fully exist, but the demand

[75] Coyle, E, p5

for its potential application is likely to drive further development in the field. The expected usage trend of SAI would most likely imitate the adoption of computer technology over the past sixty years, from the use of vacuum tubes (1946-1958) to transistor technology (1958-1964), integrated circuits (1964-1971), large scale integration (1971 onwards) and the ongoing research into quantum computing. The evolution of this technology has helped to drive development of society and has prompted the expectation that this will continue to expand. However, despite the increased familiarity with technology, humans remain cautious about the emergence of artificially intelligent system with the potential to supersede their own capabilities.

The development of SAI will continue, as the demand for this technology will push machine learning to the point where it may eventually exceed the limitations of the human beings who created it. The demand for smart SAI is particularly relevant for military applications. The purpose of war is to defend, control or defeat a foe - a foe most likely to be other human beings. If the rate of technological change persists at the rate as described in Moore's Law (which presents a doubling of computing power every two years) and the full potential of quantum computer is realised, the intelligence of SAI will exceed current computing capability by a factor of "*trillions of trillions of trillions*".[76] Unlike machines, the human brain has a limited capacity to store learning and experience. The astonishing – and scary - part of "*massive memory capacities and astronomical computational capacities*"[77] is that SAI may become far smarter than humans could cope with. If a SAI robot has a mission to kill coded into its system for warfare purposes, the question needs to be asked whether it would be possible for its creators to turn it off? How does one control a killing machine that could be many times smarter than its creator? What would happen if a renegade SAI developed its own algorithm? If these questions are not considered in advance of the technology, SAI creation could become established as a most dangerous foe that does discriminate between human as potential adversaries, but rather see all humans as adversaries.

[76] D.G. Hugo, 2005

## Accountability, responsibility, law

Another issue that must be considered with the advent of SAI is that of accountability. "*The military funding 'strong' artificial intelligence efforts, which could bypass many of the ethical/moral safeguards that ought to be integrated into a thinking machine*."[78] As stated above, SAI could become more capable than any human being due to its vast memory capacity and its speed of leaning. Humans are not born with a comprehensive knowledge of their total environment. Australian Criminal Act 1995, "*s7.1 states that A child under 10 years old is not criminally responsible for an offence. 7.2 A child aged 10 years or more but under 14 years old can only be criminally responsible for an offence if the child knows that his or her conduct is wrong*."[79] This illustrates the incapacity of human beings to fully develop a sense of right and wrong in their earlier years. Will such human laws be similarly applicable to SAI? If SAI is able to calculate right and wrong, will its owner and programmer be held accountable for its actions if it engages in harmful conduct? An SAI developed for military purposes may not necessarily be able to make the distinction between eliminating enemy combatants and indiscriminately killing innocent civilians. In such cases, new laws specific to SAI need to be considered to ensure control are in place to eliminate potential treats to human beings.

If the potential harm of SAI is inestimable, questions would begin to emerge regarding the value of building and employing this technology in the first place. If humankind decides to build SAI, it is important to be responsible considering potential consequences that may result as a consequence of this creation. One solution may be to limit the robot's AIO ("*Artificial Intelligence Quotient*"[80]). A second solution would be to increase the awareness of the potential threat of SAI. Another consideration may demand the regulation of SAI, while a fourth strategy could be to understand the motivation of the SAI creator. Once human level SAI is in place, does humankind really want to go further if our creation surpasses its creator? The

[77] D.G. Hugo, 2005
[78] Coyle, E, p5
[79] Criminal Act 1995
[80] D.G. Hugo, 2005

clean chain of command works well with human beings, but this may not be enough to constrain either the benefit or the dangers of an intelligence that exceeds our own.

## Conclusion & Way forward

There are several ethical issues that have emerged from the use of UVs. The moral and ethical values of the operator and leaders represent crucial factors for defence capability. The reliability of UVs and a high quality workforce of providers enhance the trust relationship between the operator and UVs. Moral responsibility and accountability is necessary when unexpected events occur. A "*'meaningful', 'effective'*"[81] firm regulatory frameworks "*preserves human agency and upholds moral responsibility in decisions to use force*"[82]. A formal ethical review process promotes "*better respect for … human ethical value [and] resulting in fewer adverse humanitarian consequences*."[83]

One of the propositions put forward by Major General Mick Ryan of the Australian Defence Force is that "*Military power can be enhanced by combining human potential and robotic and/or artificial intelligence capabilities*." Trust and accountability are the major ethical issues attached to this technology. The diverse moral values represented across human societies present dilemmas in coding for SAI what would satisfy all involved.

Another major concern is the potential for human obsolescence when we become superseded by machines many times smarter than ourselves. Both of these concerns can be addressed by carefully considering the processes in which we regulate the integration of this technology into our society. Just because we can develop this technology does not necessarily mean we should. This is our ethical responsibility and the repercussions of this technology ultimately lie with us.

[81] ICRC, Ethics and autonomous weapon systems: An ethical basis for human control? April 2018
[82] ICRC, Ethics and autonomous weapon systems: An ethical basis for human control? April 2018
[83] ICRC, Ethics and autonomous weapon systems: An ethical basis for human control? April 2018

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## THIRD PRIZE

# Ethical Implications of Cognitive Enhancement in Warfighters

**Author: Christina Gordon**

Warfare is, by its nature, an entirely human affair and may always require payment in human lives. Through the decades, science and technology has sought to reduce this cost. The Australian Defence Force (ADF) has engaged in the pursuit of enhancement to alleviate the price paid by its warfighters since its inception, ranging from the development of equipment such as body armour, the use of mandatory vaccinations before deployment and corrective surgery for injuries sustained in field.

Human Enhancement Technology (HET) is a rapidly advancing field that faces the same ethical, legal and policy issues that plague most technologies pertaining to national security and defence. Military necessity is well known for driving technological advancement in seeking the superiority required to secure national security. HET will not only profoundly impact the individual warfighter, but also the nature of future warfare and society at large. The ethical considerations and implications of HET will likely differ with the nature of the technology employed, whether its application is mandatory or voluntary, and the consequences of its use. In addition, where HET fits in with international legal frameworks, such as the Biological and Chemical conventions, will additionally impact its use. The inherent difficulty in tackling such an enormous topic highlights the need to examine the ethical implications of such technology, particularly when one considers the speed at which science and technological growth occurs. It is vital that any advances in military technology, especially those that are not currently governed by existing social norms or laws, are thoroughly analysed with respect to their ethical implications. At the end of the day, law floats in a sea of ethics.[84]

To date, a definitive explanation of what constitutes HET has been elusive. Some have argued that human enhancement can be defined as the application of interdisciplinary science and

technology to overcome the physical or mental limitations of the human body.[85] However, this presents a significant difficulty from the outset, as such a definition would suggest that therapeutic treatments, such as a drug to improve cognitive functions in a person with significantly below average ability, could ethically be considered in the same manner as providing a similar drug to enhance cognitive ability in a person who is already above average.

For the purposes of this paper, HET will be considered as "a medical or biological intervention designed to improve performance, appearance or capability besides what is necessary to achieve, sustain or restore health".[86] It is acknowledged that this definition is still quite broad and some academics posit that this necessitates consideration of what is the baseline state and potential of the subject in question.[87] The baseline for one population may be abnormal for others and the term 'normal' is equally subject to individual interpretation. Normal, being the frequency with which a trait or capability appears in a select population, will again differ from one population to another.[88] This paper does not seek to neatly define what baseline the ADF may potentially work from in using HET, but the inherent difficulty in defining foundational notions should not preclude consideration of potential ethical dilemmas.

One of the most important principles of military ethics is to avoid the deaths of innocent people. It is well known that the "fear and confusion in the fog of war" can lead to atrocities such as the massacre at Son My, Vietnam in 1968. Emotions, adrenaline, individual dispositions, the conditions of war and so on can drive otherwise decent individuals to perform atrocities they could never have imagined.[89] The advantage of cognitive enhancements to avoid such incidents is twofold. Enhanced warfighters, in being able to comprehend complex and high pressure situations, may be able to make better decisions to reflect the reality of the

[84] Earl Warren (Speech delivered at the Louis Marshall Award Dinner of the Jewish Theological Seminary, Americana Hotel, New York, 11 November 1962).
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[88] Ibid, 15.
[89] Tom Frame and Albert Palazzo (eds), *Ethics Under Fire: Challenges for the Australian* Army (University of New South Wales, 2017) Tom McDermott, *Avoiding the Descent into Barbarism*, 32.

circumstances at hand.[90] This could be distinguishing a non-combatant from an enemy during a fire fight, or choosing to deploy a particular capability that lessens collateral damage. Second, cognitive enhancements may reduce the impact of emotions that interfere with moral reasoning and sympathy, thereby reducing the incidence of 'berserker states'.[91]

Cognitive enhancement, by way of making positive changes to neural functioning, is not a new concept. For example, Modafinil is used by the United States Air Force as an alternative to traditional methamphetamines to enable a person to function for up to 60 hours without sleep.[92] There have also been a number of other proposals, such as treatments to reduce incidents of psychological trauma or aggression.[93] Enhancements such as these seek to improve a warfighter's ability to assess complex situations and respond appropriately, as well as control those emotional responses that make ethical decision making more difficult. This paper will consider the ethical implications of pharmaceutical cognitive enhancements used to moderate emotional responses so to improve decision-making outcomes in the battlefield.

Human enhancement is typically, although not always, subject to two schools of thought – transhumanism and bioconservatism. Although these movements are known by many names and have given rise to sub-sets of ideologies, they are well known as umbrella terms that encompass both ends of the ethical spectrum in consideration HET.[94] In the simplest terms, transhumanism holds that human nature is improvable through the use of applied science and technology.[95] Transhumanists promote the position that such technologies should be widely available and that individuals should have the freedom to choose which to apply to themselves (or in the case of expectant parents, which should be applied to their future offspring).[96] On the other hand, bioconservatists hold that human enhancements are 'dehumanizing', in that

[90] Ibid, Matthew Beard, *The ethics of enhanced human performance*, 183-4.
[91] Ibid.
[92] Luis Otero, *The Ethics of Human Enhancement in Warfighting* (Report, Air War College, United States Air Force) 9.
[93] Tom Frame and Albert Palazzo (eds), *Ethics Under Fire: Challenges for the Australian* Army (University of New South Wales, 2017) Matthew Beard, *The ethics of enhanced human performance*, 183-4.
[94] Nick Bostrom, 'In Defense of Posthuman Dignity' (2005) 19(3) *Bioethics* 202.
[95] Ibid.
[96] Nick Bostrom, 'In Defense of Posthuman Dignity' (2005) 19(3) *Bioethics* 202.

they undermine and erode the very qualities that define what it is to be human.[97] Although there are differences in where such unease arises from, whether based on religious or philosophical grounds, it is generally agreed that HET should be rejected so to avoid heading down a slippery slope that would ultimately lead to a debased post human state.[98] However, despite the opposing approaches to HET, both movements have in common a particular core concept with regards to the application of human enhancement – the notion of human dignity. Transhumanists will typically be in support of enhancements where the right of human dignity is preserved, whereas bioconservatists will outright reject human enhancement, regardless of the type of treatment, as they consider it to be an affront to human dignity from the outset. The preservation of human dignity, in applying HET to warfighters, is the foremost ethical dilemma the ADF will need to address.

The concept of human dignity, much like other definitions explored in this paper, is loaded with difficulties and subjective considerations. Human dignity is a foundational belief upon which international laws and norms have been based, such as the Universal Declaration of Human Rights of 1948 and the Geneva Convention of 1952.[99] Regardless of differences in defining exactly what human dignity entails, autonomy is almost uniformly posited as central to the notion of human dignity.[100] Autonomy is subject to particularistic perspectives such as gender, ethnicity, religious background, cultural status and so on, but can generally be defined as the individual's capacity to exercise independent decision making, ranging from mere autarchy to rational autonomy.[101] In line with transhuman and bioconservatist ideals, autonomy here pertains to the ability of an individual to elect whether or not to apply, or accept application of, HET to their person.

[97] Ibid.
[98] Ibid.
[99] Universal Declaration of Human Rights, GA Res 217A (III), UN GAOR, 3rd session, 183 plen mtg, UN Doc A/810 (10 December 1948); Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I), opened for signature 8 June 1977, 1125 UNTS 3 (entered into force 7 December 1978) ('Additional Protocol I').
[100] Matthias Mahlmann, *Human Dignity and Autonomy in Modern Constitutional Orders* (Oxford Handbook of Comparative Constitutional Law, 2013) 371, 390.
[101] Ibid.

One of the first complications arising from military use of HET is whether such treatment will be regarded as mandatory or voluntary. As it currently stands, ADF members are required to undertake certain vaccinations prior to deployment.[102] Although these treatments technically require consent to be administered, failure to do so may lead to members being deemed as non-deployable with a consequential review of their fitness to serve in the ADF.[103]

It is unlikely that, in its current infancy, HET would be mandatory for ADF members, particularly outside of a major conflict. Nevertheless, as the field further advances, the question will inevitably arise. Further thought will need to be given as to what types of HET will be available, what will be mandatory or voluntary, and will it be available to all members or tailored to specific job roles? If we choose to make HET mandatory for particular positions, will the individual then be restricted to a particular field of employment for the remainder of their career? Consider the warfighter who has been cognitively enhanced to make the best possible decisions during combat. A capability such as this would likely be considered a waste if their skill set was put to use in record keeping, whilst a non-enhanced warfighter was sent into a combat theatre environment. It is difficult to see how such a decision could withstand contestability internally or potential public scrutiny. Further, there would likely be additional implications for minimum service periods and retirement age for those who elect to undertake HET. If the ADF were to entirely rob an enhanced warfighter of their right to have at least some (however minimal) control over their career, would this offend the notion of human dignity?

Although it may be argued that, by virtue of enlistment, members of Western militaries forgo certain rights such as autonomy, it does not follow that the ADF would do so with regards to HET.[104] This is a new field of science and technology without precedence and, as pointed out earlier, the societal implications are enormous. One of the direct implications of the mandatory or voluntary debate is the onus of responsibility for the consequent decisions of the cognitively enhanced warfighter.

[102] Chapter 2, Volume 5, Health Manual (Department of Defence); DI(G) PERS 36-2.
[103] Ibid.

As an example, consider an infantry lieutenant who has been required to take cognitive enhancing pharmaceuticals to enhance his decision-making abilities on the battlefield. He has elected to do so voluntarily, on the advice of the ADF, and has experienced no ill effects up until this point. Once in the field, he finds himself in a particular scenario that places him under significant mental and emotional stress. The situation could be any number of things, but for the sake of simplicity, assume that an event has unfolded which has led to him witnessing an enemy killing several members of his platoon as well as innocent bystanders. The moment arises where he has to choose an ethical, justifiable and effective response to the situation.

In the first instance, it is desirable to imagine the ideal end-state. The lieutenant is in an a perfectly balanced emotional state to make the correct and ethically justifiable decision, ordering his platoon to respond in such a way that minimises non-combatant casualties, neutralises the enemy and achieves the mission. Ignoring the potential challenges to core service values or long-term detriment to the individual, the incident is considered as a job well done and there is no serious ethical dilemma to consider. The HET has fulfilled its purpose of providing significant benefit in conflict and the warfighter goes on to provide continuous value for money until his discharge.

Now consider the alternative. The same warfighter finds himself in the same scenario, but the pharmaceuticals produce the opposite effect by entirely eliminating the exercise of any emotion, including empathy or loyalty. The lieutenant goes into a berserker state and commits an atrocity similar to that of Son My, eliminating non-combatants and combatants alike, until all perceivable targets are neutralised. Once found and contained, medical examinations reveal that, had it not been for the pharmaceuticals, he would not have descended into barbarism and committed the massacre.[105]

[104] Tom Frame and Albert Palazzo (eds), *Ethics Under Fire: Challenges for the Australian* Army (University of New South Wales, 2017) Matthew Beard, *The ethics of enhanced human performance*, 192.

It is well known that the limited and unintended killing of non-combatants may be excused where such casualties were the consequence of necessary military operations and actions were taken to avoid unnecessary deaths.[106] However, where there is an intentional killing of non-combatants, such as the incident described above, the actors are both morally responsible and legally culpable.[107] After all, "only a man with a gun to his head is not responsible".[108] It is difficult to imagine that the lieutenant, in either situation, could be considered as having a literal or proverbial gun to his head if he had voluntarily chosen to take the pharmaceuticals. However in the second scenario, had it not been for the pharmaceuticals, the lieutenant would not have committed such the acts described. It is difficult to reason that the lieutenant would have volunteered for the treatment if he suspected that such an outcome was to occur, particularly if he had been provided with the opportunity to provide informed consent.

The ethical implications of responsibility is further complicated if the administration of HET is mandatory for warfighters, regardless of whether it is role specific or universal. There is a tendency to deny the responsibility of an individual person for harm caused where it is difficult to trace responsibility, even more so when it is the result of an action by government.[109] Nevertheless, there have been instances where the highest levels of governments have been seen as legally and morally responsible for acts of war, such as the occupation of Iraq.[110] Could the same standard of moral accountability be extended to senior decision makers in the implementation of HET?

The answer to that question is not simple or straightforward. It requires, at the least, a brief consideration of consequentialist and deontological ethics. Consequentialist theories posit that it is the ultimate outcome that is of moral importance.[111] Comparatively, deontological ethics

[105] Ibid, Tom McDermott, *Avoiding the Descent into Barbarism*, 32 – this is not to say that there are potentially other elements which could to such results; these have been excluded for the sake of ethical consideration.
[106] Neta Crawford, 'Individual and Collective Moral Responsibility for Systematic Military Atrocity' (2007) 15(2) *The Journal of Political Philosophy* 187.
[107] Ibid, 188.
[108] Michael Walzer, *Just and Unjust Wars: A Moral Argument with Historical Illustrations* (New York: Basic Books, 1977) 314.
[109] William Felice, 'Moral Responsibility in a Time of War' (2008) 35(3) *Social Justice* 28.
[110] William Felice, 'Moral Responsibility in a Time of War' (2008) 35(3) *Social Justice* 28, 29.
[111] Ibid.

focus on the rightness of an action, rather than the outcome.[112] As such, under consequentialist ethics, the lieutenant will have been ethically justified under the first scenario but not under the second. Under the deontological framework, the answer will depend on whether it is considered under the transhuman or bioconservatist school of thought. Regardless, neither provides an answer to or explanation on whether HET should be introduced into the military; it is apparent that any answer will depend on the ethical framework applied, the technology used and the outcomes that arise.

As can be seen, regardless of its potential advantages, the use of human enhancement technology will inevitably be laced with difficulty. The nature of HET is not governed by any international convention, legal framework or existing domestic policy. Its potential to reduce the cost of non-combatant lives, as well as the loss of ADF personnel, is undeniable. Nevertheless, the use of HET in military conflict will have profound effects not just upon the individual solder, but also society at large. The technology will need to be considered on a case-by-case basis as individual subjects, the type of the technology, the way in which it is used and the outcomes it produces will impact on the ethical justification of its use. Indeed, the school of thoughts and ethical frameworks employed in its consideration may entirely change whether or not it is seen as an acceptable capability for use in the ADF. However, it is central to the development of sound laws and policy in the Australian Department of Defence, and counterparts elsewhere, that technologies are considered in light of ethics. Although it is beyond the scope of this paper to offer recommendations on the best way forward, it has highlighted a few of the many ethical implications of human enhancement technologies that Government, and senior leadership, will need to consider from the outset.

[112] Ibid.

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CATEGORY FOUR

FIRST PRIZE

# The Challenges of Ethical Leadership

**Author: Meryl Clarke**

*The supreme quality for a leader is unquestionably integrity*. —Dwight D. Eisenhower

Leaders are expected to save nations (Alan Garcia), build a better world (John F. Kennedy), demand hard sacrifices (Winston Churchill) and save corporations that are dying (Lee Iacocca). When there is doubt in a leader's ability they are removed or fired (Craig Meller, AMP). Understanding the concept of leadership and all that it entails is fundamental to understanding ethical leadership. The decision and action space of a leader is limited by multiple conditions fixed by the organisation, the economy and other factors. Ethical challenges are part of everyday life for a leader. (Enderle, p. 657,659, 663) Understanding the concept of leadership and all that it entails is fundamental in accepting the impact of ethical leadership.

The leadership of an organisation sets the direction and culture of the organisation for personnel, shareholders and for management to understand and operationalise. Leaders also need to be cognisant of the two dimensions to ethical conduct: the individual and the organisation. Individual factors affecting behaviour include personal values and moral code, attitudes, beliefs and desires which can be influenced through experience and education. Organisational factors include the culture and formal structures of the organisation. (James, Jr, p 44) Understanding these factors adds additional complexity for an ethical leader to navigate.
An ethical leader doesn't believe that the end justifies the means and a profit at any cost is condoned. Ignorance regarding policies or objectives can cause uncertainty which can lead to mistakes. (McMaster) Governance arrangements such as ethical policies are perceived to minimise potential damage to the organisation. Understanding the nexus between self-interest and the organisation's interests is important to reduce the impact of poor decision making. An

ethical culture is a commitment from leaders, organisation and personnel. This partnership requires individuals to work together to achieve organisational outcomes with interested parties sharing the responsibility of ethical decision making.

## Ethical Leadership

Ethical leadership is critical for any organisation. The Association of Certified Fraud Examiners found that whatever tone management sets will impact employees. If leaders uphold ethics and integrity, personnel will be more inclined to uphold those same values. However, if management disregards ethics and focuses solely on profits, personnel will be more prone to show traits of unacceptable behaviour and undertake unlawful decisions as they feel that acting ethically is not a focus or priority within the organisation. If leaders at all levels have a commitment to ethics and they understand ethical dilemmas, this provides a foundation for other personnel in the organisation to support an ethical culture. (Graycar)

The State Audit Institution (SAI) of the United Arab Emirates believes that the behaviour of leaders has a very strong influence on the ethical environment of an organisation. Many recent corporate failures have been attributed to poor ethical behaviour by leaders that are then reflected in the actions of employees in the workplace. (SAI)

Ethical leadership is dependent on leaders using their perceived power to influence their organisation or personnel. A leader's influence has an incredible impact on the business they work for, employees, shareholders, customers and the economy. (Thoms) An organisation is not just shaped by the CEO, every other leader in the organisation has the ability to influence personnel.

It is important that personnel have trust in their manager's words, and their consequent trust, if that manager is to play the role of a transformational leader. (Simons 90) Rotter's definition of trust comes closest to behavioural integrity. Rotter defines interpersonal trust as ``an expectancy held by an individual or a group that the word, promise, verbal, or written

statement of another individual or group can be relied on''. (1967, p. 650) A literature review undertaken suggests that a culture of integrity set by a CEO and management can have an impact on the ethics of the organisation. A leader's influence can shape the business they work for, personnel, shareholders, customers and the economy. (Thoms)

Leadership sets the right example for others to follow, sets the right culture by making it clear that any unethical behaviour will not be tolerated, with the leadership of the organisation responding to unethical behaviour when cases are discovered. An organisations ethical culture dictates expected behaviours of its personnel which also allows personnel to 'call out' unacceptable behaviour or unlawful activity. Management either condones or condemns unacceptable behaviour. If an organisation or government agency has a zero tolerance policy to unacceptable behaviour, and they are willing to respond to incidents either through the courts or administrative action, this is a deterrent for the organisation. If senior management accepts unethical behaviour, then this culture will become the norm with a potential increase in unlawful activity. Enron, Salomon Brothers Inc, Worldcom, Volkswagen are testament to this acceptance and escalation of behaviours.

The connection between unacceptable behaviour and the "tone at the top" of an organisation has received international attention over the last few years. Corporate greed destroys businesses, impacts stockholders and employees. Ken Lay, Jeffrey Skilling, and Andrew Fastow from Enron; Bernie Ebbers from MCI/WorldCom; and Dennis Kozlowski at Tyco became famous because of their actions. It is believed that these individuals represent only a small percentage of the executives who have abused their positions to commit corporate fraud. Over 100 public company CEOs have been sued over the last five years for committing white collar crimes. These CEOs were sending a clear (though perhaps unintentional) message to their employees that committing fraud is acceptable as long as it makes the business appear profitable. It is crucial to a company's success for executives and management to set an ethical example of how their personnel should behave in the workplace. When those in top positions set the wrong, unethical example by committing unlawful activities, their personnel may take heed and follow in their bosses' footsteps, creating an entire culture of workplace that accepts

unlawful activities. (Association of Certified Fraud Examiners)

It is interesting to note that an Ernest and Young survey found that 2,825 executives identified that almost half of all respondents (43%) could justify unethical behaviour to meet financial targets with 36% willing to act unethically to help a business in an economic downturn. The survey also found that 238 CFO's (36%) and 354 finance team members (46%) could rationalise unethical conduct to improve financial performance. This could identify that the organisational culture either condones or ignores the unethical conduct of these personnel.

Behavioural integrity forms part of leadership integrity. Personnel are quick to recognise when leaders are espousing ethics just to be seen to be doing the right thing. Behavioural integrity (BI) is the perceived degree of congruence between the values expressed by words and those expressed through action. It is the perceived level of match or mismatch between the espoused and the enacted. BI is the extent to which personnel believe that the organisation and/or the leaders in it represent themselves and their motivating values accurately in their communications with personnel. BI involves the extent to which a manager ``walks her talk'', and, conversely, the extent to which she ``talks her walk''. BI focusses on the extent to which stated principles match actions. Behavioural integrity entails an internal attribution for word action match or mismatch, and may be ascribed to an individual manager (``John means what he says.'') or to a larger entity ("The management of this company blows a lot of smoke at the annual meeting.''). (Simons p. 90)

## Ethical Culture

Organisations just can't wish to be ethical. In order to act ethically, leaders and management within the organisation must establish and maintain an ethical culture. Establishing an ethical culture can be difficult as the previous accepted norms and organisational practices may be different to the new expected practices and personnel may challenge the change. Maintaining an ethical culture does not happen by releasing policy and guidance. An ethical culture must be interwoven into all aspects of the organisations activities. If the corporation is serious,

resources must be devoted to establishing and maintaining an ethical culture in order for it to be successful. Focus should be devoted to personnel and shareholders of the organisation initially. They are the key stakeholders who must embrace the direction that is intended by leaders of the organisations. (Woods, p. 64-65)

Organisations in Australia are good at introducing codes of ethics; informing personnel of the existence of ethical rules and standards; and at assessing if personnel are complying with policies. However, it appears that organisations are deficient when it comes to putting in place measures to assist personnel in understanding and complying with the ethical ethos of the organisation. This situation is concerning as a lack of ethical structure and guidelines is counterproductive to an improvement in ethics in organisations. Personnel can't be expected to understand and practice the ethos of the ethics program through osmosis; but rather the personnel must be given every possible assistance to internalise the organisation's value system. (Woods, p. 65)

Woods developed a partnership model of corporate ethics (below). This model demonstrates not only the commitment to an ethical culture by the organisation, leaders, personnel and shareholders, it also outlines the organisational artefacts that underpin the organisational ethical culture.

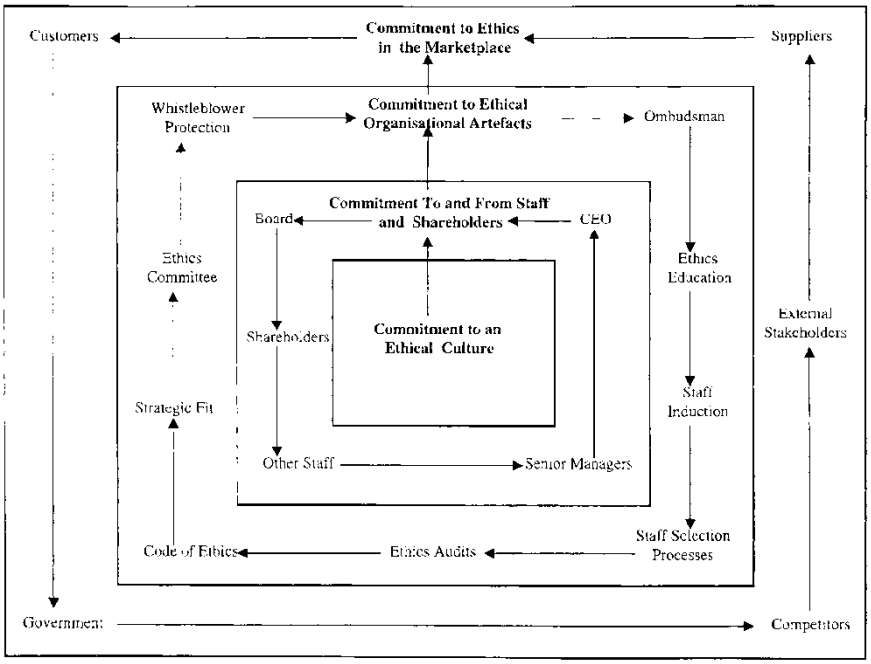


Figure 1: A partnership model of corporate ethics. (Woods, p. 64)

## Ethical versus Legal

There is always a distinction on what is legal and ethical. While Enron executives exploited loopholes which were legal, their actions could be judged as unethical. The leadership culture signalled to Enron employees that they were the brightest and best personnel available. Therefore, they do not have business deals that fail. Personnel began booking earnings before they were realised with a view that they were "early" rather than wrong. The culture at Enron was quickly eroding ethical boundaries. While the Enron culture permitted acts of insignificant rule bending, it was the sum of incremental ethical transgressions that produced the business downfall. (Sims, Brinkmann) In principle, the right answer in ethical issues might often be morally and legally clear; but in fact the outcome is not always so clear-cut. How actions are perceived and by whom may be crucial and while the 'right' answer may be clear to some people, the same actions may be regarded as unethical practices.

The impact on organisations when unlawful activities are undertaken by personnel can be

catastrophic. Data within the Searle Civil Justice Institute paper[113] states that the 13 companies charged with bribery and financial fraud suffer an average reputation loss equivalent to 43.03% of market capitalisation (median of 17.18%). The difference between the estimated average loss for the fraud and no-fraud sample is significant at the 10 percent level using a parametric t-test and at the 0.1% level using the Wiloxon test.

If an organisation is charged with bribery under the United States Foreign Corrupt Practices Act (FCPA), the market capitalisation average loss is around 2.9%. Companies charged with bribery and financial frauds under the FCPA suffer on average market capitalisation losses of 16.3%. When abnormal returns are cumulated over all incremental revaluations of information pertaining to the FCPA the average loss is much larger. For action that involves fraud, the average cumulative shareholder loss is 46.3% of market capitalisation. When revaluations of bribery are comingled with revelations of financial fraud, the firms also suffer extremely large reputational losses. (Searle Civil Justice Institute)

The Financial Services Royal Commission in Australia has uncovered a significant number of unethical behavioural problems within Australian financial institutions. AMP has admitted that it deceived the corporate regulator ASIC over fees charged to thousands of customers who were not provided with financial advice they were being charged for. AMP also appears to have taken action to cover up the charging policy and the Australian public took issue to the cover up. The CEO and Chairman of the Board resigned as the company has seen a $2.2 billion decline in share prices. The other banks involved in charging fees for no services have apologised with the big four banks and AMP are refunding customers around $216 million for services that were not provided. AMP is only $4.5 million of the $216 million. This case clearly demonstrates that certain unethical behaviours, such as covering up wrong doing, have higher consequences on organisations than other types of behaviours.

[113] *The Foreign Corrupt Practices Act: Economic Impact on Targeted Firms*. George Mason University School of Law, June 2014

## Ethical Risk and Dilemmas

In today's society, our attention is often drawn to controversies surrounding moral or ethical issues. Organisational decisions impact a wide range of stakeholders, draws heightened public scrutiny and are one of the main forces behind the growing awareness of business ethics. Leaders need to be aware that the decisions they are responsible for effect not only the organisation, but also society and individuals. They need to weigh the relative advantages and disadvantages of various strategies and outcomes connected with the decisions being made. When an organisation is perceived to act unethically, the public responds (AMP scandal). Some decisions have complex ethical problems that the organisation, management and personnel have to navigate. Organisational leaders face challenges and pressures that attract ethical risk. Ethical dilemmas are generally inherently complex, have ambiguous implications and are sometimes difficult to recognise. Leaders are often faced with imprecise problems that require interpretation and decision making at very complex levels. Under these conditions, leaders are often faced with ethical risk. (Thiel, Bagdasarov, Harkrider, Johnson, Mumford. p. 51)

Ethical problems in business are caused by situations where it is not clear what is acceptable, or where errors in judgement cause personnel to fail in making the right choice, despite knowing what is right and wrong (Lamsa, 1999). Organisations need to ensure that there is a clear Code of Conduct policy in place as well as a Conflict of Interests policy. This assists management to set the right culture and for personnel to understand what is acceptable or unacceptable within the context of the business they work for.

An understanding of ethics begins with an analysis of values, both individual and organisational. Effective managers and leaders must be aware of their values and the organisations as well as the system of ethics and ethical decision making in place. Honesty and integrity is what most people look for in leaders. Ethical dilemmas occur when important values, such as making money and following the rules, come into conflict, and the decision maker must make a choice between these values. Since both values are important, the decision maker will evaluate which values take precedence over the other. To the extent

possible, a careful balance must be preserved to maximise both values in order to avoid unethical decision making. Navigating this conflict is where leaders can stray from an ethical path. (Mullane, p. 1, 3)

Understanding the relationship between organisational activities and the conditions for ethical behaviour assists personnel in navigating ethical dilemmas. Table 1 below depicts McDonald's and Nijhof's (p 143) version of what the relationships may look like. McDonald's and Nijhof's view is that it is neither necessary nor recommendable to strive for separate activities in all ethical aspects of decision making. To stimulate ethical behaviour in an effective way, it is necessary to ensure the ethical aspects of decision making are not separate but are an integral part of the operations in an organisation, as are financial or juridical dimensions of the organisation.

| **Organisational action** | **Effects on conditions for ethical behaviour** |
|---|---|
| Developing a code of conduct | Introducing formal organisational norms<br>Influences personal intentions of employees |
| Training employees | Appreciation of formal organisational norms<br>Develops skills for dealing with complex ethical questions<br>Influences personal intentions |
| Anecdotes and story telling | Develops informal organisational norms<br>Makes morality a legitimate topic of communications |
| Reward systems to back up ethically responsible decisions | Develops informal organisational norms<br>Influence on the consistency between personal intentions and actual behaviour |
| Monitoring systems and performing ethics audits | Availability of information<br>Influence on personal intentions and preventing |

| | |
|---|---|
| | irresponsible behaviour |
| Communication channels | Determines formal procedures of decision making<br>Availability of information through building in dialogue opportunities |
| Job design | Determines formal procedures of decision making, through distribution of responsibilities<br>Allocation of financial resources |
| | Determines whether there is enough time to perform all tasks conscientiously |
| Appointing an ethics officer or implementing an ethics hotline | Influences skills for ethical decision making because of the opportunity to discuss it with a second person |
| Information system | Influences the availability of information |
| Employee selection | Influences personal intentions through careful selection of employees who fit with the organisational norms and climate |
| Process layout | Influences the necessary skills because complex processes require high skills<br>Influences the availability of information because complex processes imply the need for much information |
| Quality management and organisational strategy | Influences formal and informal organisational norms<br>Determines the allocation of financial resources<br>Determines the adequacy of equipment |

Table 1: Relationship between organisational activities and conditions for ethical behaviour

Cranston created a model of ethical dilemmas as depicted below in Figure 2. In this model, there are nine elements identified that an individual needs to consider plus any other outliers

that may impact choices. Another dimension is the individual's values, beliefs and attributes which impact decisions that are made.

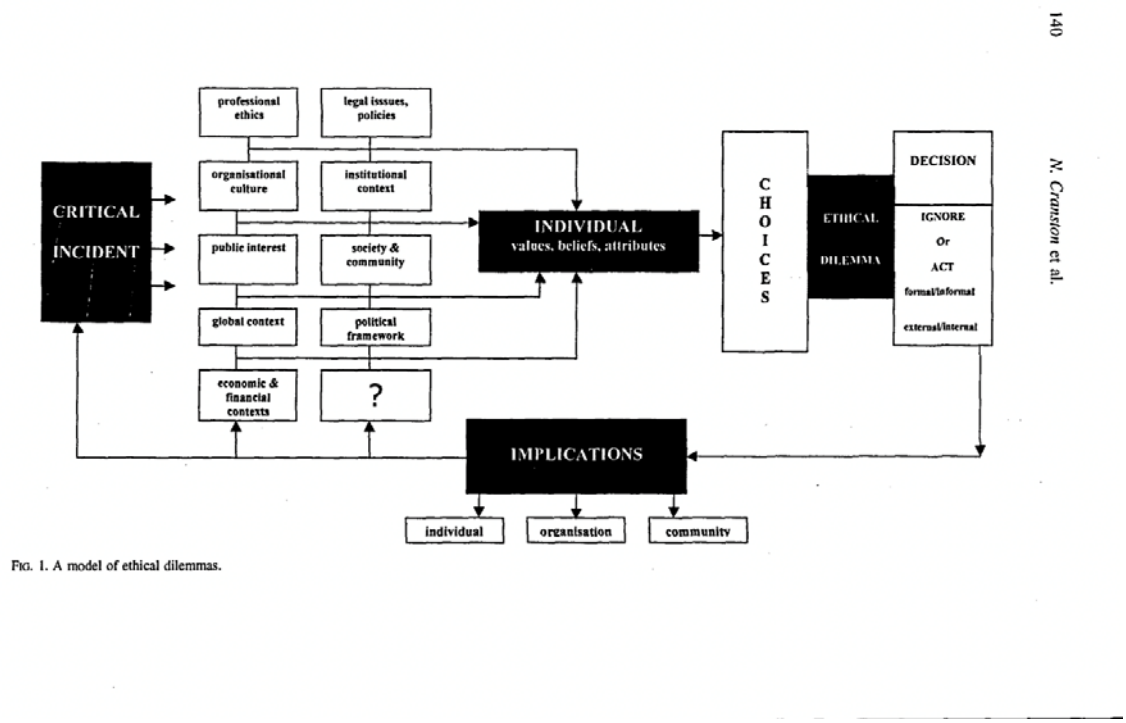


FIG. 1. A model of ethical dilemmas.

Figure 2: A model of ethical dilemmas

An example of an ethical dilemma that was not properly thought through is the ball tampering episode undertaken by three Australian cricketers. In March 2018, Captain Steve Smith, Vice-captain David Warner and fielder Cameron Bancroft were caught on television trying to rough up one side of the cricket ball. The pressure of the South African test and the public expectation that the team would win, more than likely created an ethical dilemma for these three individuals. They clearly did not think about the consequences of their actions or the Australian public's reaction to cheating. The values of sportsmanship, fairness and honesty which the Australian cricket team claims to uphold have been severely undermined by the ball-tampering incident. Once a line is crossed, it is difficult to get back in the public's graces. While other nations have been caught ball tampering in the past with minimal repercussions, Cricket

Australia imposed heavy sanctions on these players. An individual's integrity and moral compass are essential to navigating these types of decisions.

## Consequences of Unethical Leadership

In the case of Enron, poor leadership and judgement led to catastrophic consequences. Executives within Enron used accounting loopholes, special purpose entities, and poor financial reporting to hide billions of dollars in debt from failed deals and projects. A number of Enron executives were indicted for a variety of charges with some later sentenced to prison. The external auditor was found guilty in a United States District Court of illegally destroying documents relevant to the SEC investigation which voided its license to audit public companies, effectively closing the business. By the time the ruling was overturned at the U.S. Supreme Court, the business had lost the majority of its customers and had ceased operating.

Worldcom's fall from grace was catastrophic with the loss of 17,000 jobs and the group admitting to having inflated profits by nearly US$4 billion through deceptive accounting which is financial statements fraud. The former CEO was found guilty of fraud relating to the accounting scandal and was sentenced to 25 years in prison. (Australian Securities & Investment Commission)

Another example is the demise of Salomon Brothers Inc which was a Wall Street icon for most of the twentieth century. One trader submitted illegal bids for US treasury securities in August 1990. This trader's supervisor only chastised the bid when it came to their attention. In May 1991, the practices that were 'condoned' by the company came to the attention of SEC. The company was fined $290 million and was on the brink of bankruptcy. In this case, a strong leadership response to the initial illegal bid would have prevented the fine and potential collapse of the company.

In September 2015, Volkswagen (VW) made headlines regarding the recall of nearly 500,000 diesel cars in the United States because of a diesel emissions deception sanctioned by

management. The story surrounding the recall impacted the company seeing a massive sell-off of its stock which wiped $16.9 billion of the company's market value. VW later admitted that up to 11 million diesel vehicles in the world were also equipped with a defect device that disguised emission levels in laboratory diesel-exhaust emissions tests.

The scandal had economic, political, and social consequences. Rigid leadership styles, insular corporate governance, and drawbacks from family feuds and nepotism created a culture that allowed this deception to occur. VW's economic situation was damaged from worldwide recalls, loss of sales, and decreased stock market price due to the scandal. Experts estimate that the scandal will cost tens of billions of dollars or beyond to the company. (Jung, Park)

## Conclusion

The challenges facing ethical leadership are significant. In the fast paced, changing world that we live in, leaders have to navigate how to be successful as well as ensuring that the outcome meets societal standards. They need to determine what sacrifices have to be made to meet the organisations goals while not compromising their own values and beliefs or the organisations ethical climate.

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