

Using Demographics to Enhance Command Functions

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Abstract

Whether it's a small town in a conflict zone or a neighborhood in a city inundated by disaster, US commanders are increasingly called upon to directly interact with the civilian population. Often vital to mission success, such interaction are equally complex and complicated due to many factors, such as culture, race, language, or religion that the commander must cope with, but can not either control or influence. Correctly implemented, however, interacting with the *locals* could yield significant intelligence about the adversary or contribute to winning of the "hearts and minds". Similarly, while supporting civilian emergency response, effective communication can bring calm to a distraught population and help with situation management.

A key element of effective communication is tailoring the message to the audience. While nothing takes the place of spending time with the residents of a neighborhood, statistical socio-economic snapshots – demographics – can meaningfully summarize core neighborhood attributes and serve as an excellent reference or starting point for commanders.

This paper focuses on how demographics can be used to enhance command functions. We first discuss nature and utility of demographics, including how a few metrics can accurately model significant properties of a large population segment. We briefly discuss how essential demographic metrics could easily be extrapolated for *any* neighborhood in the world using only open source tools and the Internet. We then discuss how demographics has successfully been used to remediate undesirable, but difficult-to-change behavior, such as smoking cessation. Finally, we conclude with the analysis of typical command functions and suggest where demographic extensions may be most useful.

Keywords: Demographic Profile, Behavior Model, Command Function

1. Introduction

The age of asymmetric warfare has put significant demand on US commanders as the theatre is now primarily urban. Using Baghdad as an example, a key advantage the Iraqi insurgents have is the “neighborhood”: Exploiting their knowledge of population, they are able to plan and attack the US Coalition, Iraqi Government forces or competing militia, inflict casualties, and then vanish in the crowd. The insurgents’ deep knowledge of neighborhoods enables small groups to devise *local* strategies to control a large segment of population and secure key operational components of their campaigns, such as surveillance, logistics, and execution support. These local strategies may range from securing the local *mullah’s* support, or using violence. By contrast US Commanders can have very little understanding of the same neighborhoods, particularly as troops rotate. This is a handicap that clearly hinders any COunter INsurgency (COIN) operation.

At the same time, the military’s role has significantly expanded beyond warfighting as governments are increasingly called on to respond to disasters, both within their borders as well as in the international community¹. This is particularly true as terrorism has evolved from *duration events*² to large-scale *conclusion events*³ targeting civilians, the military’s role in disaster response has also expanded. Militaries are now involved in prevention and planning phases of disaster management and their role is no longer limited to response operations. As a result command and control has become the prevailing model of disaster response in almost all industrial nations – making the commander the primary point of contact with the civilian population.

As the result US commanders are increasingly called upon to directly interact with the civilian population whether it’s a small town in a conflict zone or a neighborhood in an unfamiliar city inundated by disaster. Often vital to mission success, such interaction are equally complex and complicated due to many factors, such as culture, race, language, or religion that the commander must cope with, but can not either control or influence.

Correctly implemented interacting with the *locals* could yield significant intelligence about the adversary or contribute to winning of the “hearts and minds”. Understanding the “make up” of a neighborhood might enable better intelligence gathering, which could alert our forces to a pending insurgent operation. In addition, tailored and effective communication can also be an incredibly valuable tool in helping to deny insurgents freedom of movement, and reducing their operational capabilities, by eroding their support within the population. Similarly, while supporting civilian emergency response, effective communication can bring calm to a distraught population and help with situation management.

A key element of effective communication is tailoring the message to the audience. While nothing takes the place of spending time with the residents of a neighborhood,

¹ R. Dourandish, N. Zumel, M. Manno, *Command and Control During the First 72 Hours of a Joint Military-Civilian Disaster Response*, in Proceedings, International Command and Control Research and Technology Symposium, Newport, RI, 2007.

² For completeness: A duration event is a (terrorist) activity that is designed to hold attention for a period of time before conclusion. Hijacking and hostage capture are two examples. Duration event give responders time to potentially prevent a deadly conclusion.

³ For completeness: A conclusion event is a terrorist activity that is designed to beget attention after the act has concluded. WTC terrorist attacks and suicide bombings are two examples.

statistical socio-economic snapshots – demographics – can meaningfully summarize core neighborhood attributes and serve as an excellent reference or starting point for commanders.

1.1 Demographics

Demographics refers to distinct, observable, and discernable population characteristics of a population segment, *demographic variables*, such as age, sex, gender, income, religion, or language. These variables are assigned one per member of the population segment. The aggregate of demographic variables is generally used to *segment* the population by ranges of values for that variable, as exemplified in Figure 1.

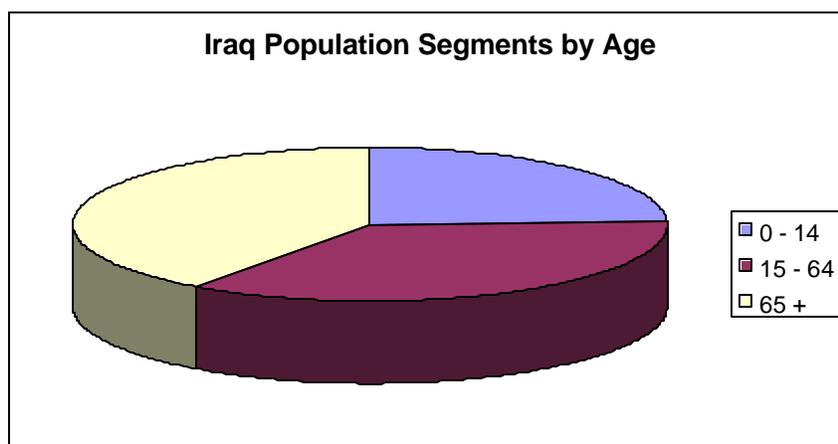


Figure 1: Example of Segmentation Based on Demographic Variables⁴

While the segmentation shown in Figure 1 is useful to form an overall impression of the target population and therefore form a basis for action, it is too high level to efficiently be applied.

1.2 Demographic Profile

A profile is a combination of two or more demographic variables that can refine impressions gained from higher-level segments of a population. A demographic profile, often expressed in socio-economic terms such as *middle class*, offers a better foundation for tailoring segment-appropriate *message*. While messages, typically associated with a specific high-level objective, have wide ranging manifestations they share a single attribute in that they solicit a specific *action* from the target segment. An example of such demographic profile is shown in Figure 2. The demographic profile shown is a “Money and Brains⁵” segmentation profile – in this case defined as high income professionals with advanced degrees and certain level of spending power and desire to flaunt their success, as measured by the value of their homes, cars, and clothes.

⁴ Source: http://en.wikipedia.org/wiki/Demographics_of_Iraq

⁵ This and similar labels are arbitrary, i.e. there is no standard definition, and is generally designed as “reminder handle” to draw rapid or immediate attention to the underlying demographic variables used in the segmentation.

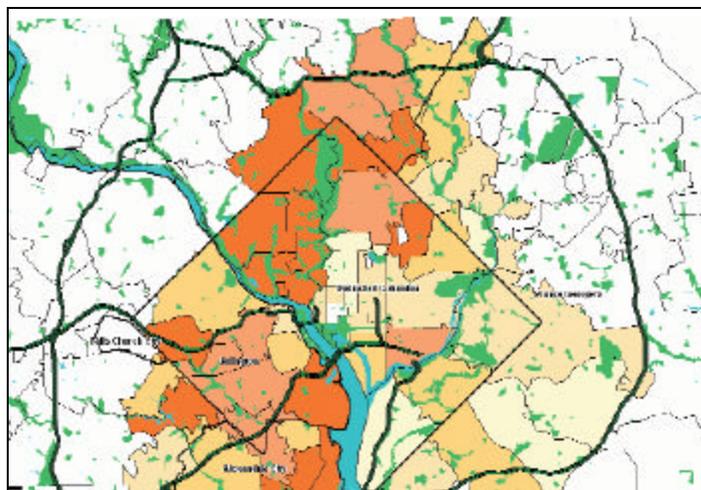


Figure 2: Example Map-based Visualization of a Demographic Profile (Washington, DC)⁶

The relevant (and extremely interesting) items about the segmentation shown in Figure 2 is that further analysis of the segment revealed it to be composed of mostly city dwellers, predominantly white, with high concentration of Asian-Americans, and married couples with few children. Furthermore, as clearly demonstrated by shading on the mapped visualization, the members of the population segment tend to concentrate in certain neighborhoods – forming *cohorts*⁷. Loosely defined the term refers to members of the same group who generally exhibit similar behavioral patterns. In industrial nations this information provides supports for a range of commercial and civic activities, such as the decision where to open a new grocery store, or how local taxes are spent.

Despite the wealth of insight that can be gained from demographic profiles, they fundamentally cannot function as predictive instruments. This gap is typically filled using *Demographic Models*.

1.3 Demographic Models

The ability to predict how and when a given segment might react is central to how its members are approached. Typically used by marketers, these models are foundation of *campaigns* focused on cohorts. A campaign typically has six components: An *Objective*, A *Call for Action* and an *Offer*, wrapped together with a *Message*, delivered via a *Medium*. All campaigns include a *time* element. A campaign may be a single offer effort or repeat along one of its axis, as well as time. In particular, while always present, the time element may not be an *operating* element such as a deadline for action.

Once a campaign is presented to a group, its members exercise their option to accept or reject the offer. The so-called *responder* and *non-responder* sub-groups generally share certain subset values of the demographic attributes that segmented them into the same cohort group. For example, income does not play a significant role in purchasing

⁶ Source: Claritas Corporation (<http://www.claritas.com>)

⁷ Originally the term only referred to generational cohorts, e.g. baby boomers. Currently, however, the term refers to any group that manifests similar behavioral patterns.

electronic games and console products for the *males* in 14 to 34 year old age group⁸, despite the significant variances in income and cash flow distribution. Income is also not a significant factor in purchasing clothing articles for *females* in the same age category⁹. However, generalization that income is not a factor for *anyone* in the same age cohort group would no doubt be a mistake. Marketing models are specifically designed to generalize group behavior and help understand the underlying response factors.

Over time, these response models have evolved into two major categories: *Personal* and *Group* decision-making models – also referred to as *Individual* and *Organizational* models. Understanding these models is pivotal in designing successful campaigns, though there is no clean boundary between the two, particularly with respect to political or ideological campaigns. This is clearly demonstrated in election campaigns where, money notwithstanding, the candidates’ individual beliefs and the influence exerted by organizational supporters, such labor unions or the military¹⁰ combine to form the outcome.

1.3.1 Individual Behavior Model

One reason for the complexity in individual behavior models the *impulse* factor which, generally apply to items that can be easily acquired, e.g. “charge it”, and are binary in nature, i.e. the individual either will or won’t commit. Clearly, this response behavior becomes less relevant as the cost and complexity of decision increases – or when the ultimate cost cannot easily be determined; a situation that is directly relevant to our context. As the result, marketing scientists have developed a tiered taxonomy to consumer behavior, as shown in Table 1.

Need Arousal	Individual identifies a/the need for action. Sometimes this is due to an internal or innate drive, e.g. thirst or hunger. Other times this is triggered by advertising, new phone model or movie. Yet another instigator is peer pressure, or due to elder/leader direction or suggestion.
Information Search	This is the stage where the individual forms a ranked set of solution candidates and preferences, and eventually commit to a solution.
Commit ¹¹	Commitment is made.
Post-Commit	The post-commitment phase determines whether or not the decision is reversed and, particularly relevant to our context, influences others within the individual’s cohort segment, particularly the immediate peers.

Table 1: Individual Behavior Phases

Each phase is supported by a different analytical modeling approach. Sophisticated campaigns are typically designed to move individuals from the topmost tier to post-commit phase, a successful conclusion of which is typically defined as the individual making a referral to a friend. Furthermore, outcome of this phase also significantly

⁸ <http://www.marketresearch.com/account/login.asp?SID=59962500-405651954-465515894&productid=1587849&durl=%2Fproduct%2Fdisplay%2Easp%3Fproductid%3D1587849%26m%3D1>

⁹ Market Analysis, *Woman’s Clothing in the USA*, Mintel Research, Dec 2006.

¹⁰ Primarily applies to new democracies transitioning from military rule, such as Pakistan.

¹¹ Also referred to as “purchase” in statistical and marketing literature.

influences individual's *information search* the next time the same or similar need is identified. Additionally, since one of the most practiced forms of individual information search is to ask cohorts or peers for a recommendation, results of this phase has significant implications in the cohort group's future behavior as well.

1.3.2 Organizational Behavior Model

With the exception of need arousal, distinctions between the organizational and individual behavior are artificial in our context. We will therefore focus the balance of our attention to relating demographic model to command functions, in the context of individual behavior.

2. Application to Command Functions

We focus on relating behavioral models to command functions at the battalion level because it is the smallest unit where the commander has sufficient assistant staff. Of the battalion commander's staff, we are specifically interested in the intelligence (J/S2), civil or public affairs (J/S5), and civil-military (J/S9) officers, who all interact with the local civilian population at some level. If we consider this interaction at a macro level, the focus of which is to gain local support – “wining hearts and minds” – the similarities with a typical, though complex, marketing or political campaign becomes rather apparent; as with a complex marketing campaign, the command operations must first create a need, then offer a solution, solicit and secure a commitment, and grow its influence – “market” – through referrals.

Under normal circumstances, a marketing manager would perform a series of test – perhaps formed based on observational or anecdotal data – and then analyze the responder and non-responder demographics and proceed with modifying the campaign's parameters and continue the test-measure-modify loop until a set of stated objectives have been achieved. This strategy continues to prove effective in almost all situation, from the very basic problem of selling sneakers to modifying engrained, though unhealthy behavior.

Consider for example the campaign against smoking. The initial campaigns targeted health hazards of smoking to the individual¹². The strategy, however, proved less than successful. An analysis of the non-responder group showed that early adapters are typically teenage males who do not consider health hazards when making decisions. The analysis of the same group also showed that relationships and peer acceptance as top two motivators. The campaign then began targeting the harm second-hand smoke would cause to friends and relatives – a tactic that proved successful and was expanded to include the harmful effects of smoking between spouses, parents' on their children, friends, and eventually strangers sharing the same space. The key to success was understanding the key demographic attributes of each target group and then tailoring the message to first point out an inherent human need, not wanting to harm our loved ones, and then offer a solution, to stop exposing them to second hand smoke.

As we see it, the fundamental problem as relates to command operations, is that all of these organizations that come to contact with locals use the same individual models of

¹² All commercials are available of www.firebrand.com

behavior. In part this may be due to the fact that most militaries have not yet acknowledged the sophistication of civilian marketing models and, as the result, have not incorporated these proven strategies in their civilian interaction protocols. A more important factor, however, is that western-style demographic data is difficult to obtain in most third world locations.

Considering Iraq as an example once more, the challenge there is that we do not have even the most basic of demographic information. While a number of Marine units have begun to take census in some neighborhoods¹³, numerous challenges exist in creating any accurate picture of any Iraqi neighborhood. Included in the list of these challenges are the sectarian violence in mixed neighborhoods that forces a large number of residents to flee; political violence in homogeneous neighborhoods¹⁴; mass exodus of the middle class that leaves large gaps in some demographic observables such as age and income; cheating, where members of a minority group are bused into a neighborhood only because of the census¹⁵; the impact of Internally Displaced Persons (IDP); and return to their old neighborhood of individuals whose property was seized by member's of Saddam's regime – particularly Kurds and Turks. Despite such challenges, it is possible to summarize high-level demographic data using open source and readily available resources such as Yahoo! maps¹⁶. In addition, some high-level data is available from various other sources such as the CIA Fact Book¹⁷, and regionally produced blogs. Furthermore, it is possible to discern certain demographics, such as religious affiliation, based on places of worship in a neighborhood. Finally, certain socio-economic attributes can be derived from neighborhood attributes such as population density and lot sizes¹⁸.

In our view, proven strategies, typically used in marketing campaigns, can offer significant value to command operations, as described in the following sections.

2.1 Civil or Public Affairs Operations

According to the U.S. Army, "Civil Affairs (CA) units help military commanders by working with civil authorities and civilian populations in the commander's area of operations to lessen the impact of military operations on them during peace, contingency operations and declared war." With their expertise in civil matters, they are the principle unit in assisting a commander in the conduct of civil-military operations.

CA units act as a liaison between the civilian inhabitants of a war zone, or disaster area, and the military presence, both informing the local commander of the status of the civilian populace as well as effecting assistance to locals by either coordinating military operations with non-governmental organizations (NGOs) or distributing directly aid and

¹³ Trying to gauge mood in unfamiliar town, U.S. Marines resort to census taking, Associated Press Worldstream, International News, April 8, 2006, available on Lexis-Nexis.

¹⁴ State of Emergency for Basra, Guardian unlimited, May 31, 2006, Paragraph 11, available on <http://www.guardian.co.uk/Iraq/Story/0,,1786889,00.html>

¹⁵ Trying to gauge mood in unfamiliar town, U.S. Marines resort to census taking, Associated Press Worldstream, International News, April 8, 2006, available on Lexis-Nexis.

¹⁶ R. Dourandish, N. Zumel, *A Methodology to Glean Demographics From Open Sources to Support Commanders in Unfamiliar Urban Areas*, in 3rd Situation Management Workshop, part of IEEE Military Communications Conference, Orlando, Florida, 2007.

¹⁷ <https://www.cia.gov/library/publications/the-world-factbook/>

¹⁸ See 16.

supplies. Furthermore, CA provides the commander with cultural expertise, assesses the needs of the civilian populace, handles civilians on the battlefield, refugee operations, keeps the commander informed of protected targets such as schools, churches, hospitals, etc., and interfaces with local and international NGOs and private volunteer organizations, which provides the commander with a unique battlefield overlay of all civilian activity, ongoing infrastructure projects, and the presence and mission of NGOs in the area¹⁹. These activities uniquely position CA staff in terms of both access and exposure to the civilian population.

We believe the most optimal point of focus for civil affairs operations is in the *Need Arousal* and *post-commit* phases. In fact, we see the Civil Affairs (CA) role somewhat similar to that played by a corporation's marketing department when attempting to enter a new market with an existing product.

2.1.1 Need Arousal Models

Need arousal is generally considered the foundational *motivation* for individual action. There are two primary modeling approaches: Maslow's *hierarchy of needs*²⁰ and McClelland's theory that suggests that needs are in fact *learned*²¹. Maslow classifies individual needs (motivation) in progressively more abstract concepts, building on a innate needs such as breathing and hunger, as shown in Figure 3.

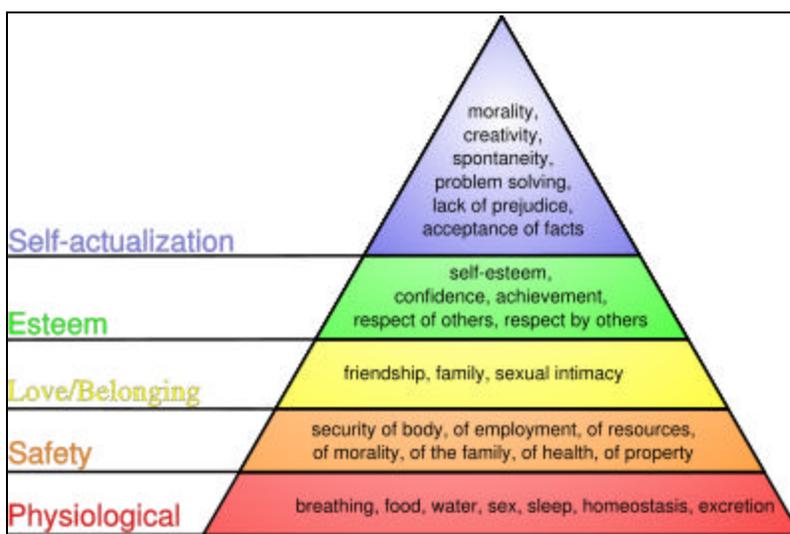


Figure 3: Maslow's Hierarchy of Needs

As an alternative, McClelland's model classifies need arousal as motivated by *Achievement*, *Affiliation*, or *Power*. While McClelland's theory has shown stable over time and across cultures²², the model in our opinion is too qualitative and complex to be

¹⁹ http://en.wikipedia.org/wiki/Civil_Affairs

²⁰ http://en.wikipedia.org/wiki/Maslow's_hierarchy_of_needs

²¹ http://en.wikipedia.org/wiki/David_McClelland#McClelland.27s_Theory_of_Needs

²² Bradburn, N., Berlew, D., *Need for Achievement and English Industrial Growth*, in *Economic Development and Cultural Change*, Vol 10, 1961.

applicable in a conflict zone²³. By contrast, Maslow’s model can easily be quantified along multiple metrics and demographic variables, making it ideal for use by Civil Affairs operations. Specifically, we believe campaigns built around the first two levels of the hierarchy, *physiological* and *safety*, with the specific goal of creating the need to embrace the new environment are most appropriate for Civil Affairs operations. It is vitally important that the campaigns are specific and time-bound, as opposed on open-ended and vague. For example, a message such as “we will remain in Iraq as long as it takes for democracy to take root” is less ideal that a campaign that simply asks “what would you do today, if you had the freedom to do anything²⁴”?

While *Physiological* and *Safety* motivations are shared by almost all members of a given community, not everyone is equally affected. As the result, identifying demographic profiles of cohorts who most likely desire increased safety, for example, is key to building a successful campaign. In most communities, those most interested in safety and stability are, typically, those with families, professionals, and business owners, the cross-section of which is typically referred to as the *middle class*²⁵ - an identifiable cohort group. As previously discussed, it is possible to derive some higher-level socio-economic demographic profiles, such as *middle class*, using open source tools and without requiring detailed raw data²⁶. For example, as shown in Figure 4 and Figure 5, usable data about relative differences in the socio-economic stature for residents of two neighborhoods can easily be derived by analyzing open source satellite imagery²⁷.



Figure 4: Satellite view of Sadr City.

Commonly referred to as the Shi’a slum. Note the small dwellings, densely packed and near industrial/dirt lots, and lack of any greenery to speak of. Scale is the same as 5.



Figure 5: Satellite view of Mansour district.

This neighborhood which is (was) one of Baghdad’s high-income neighborhoods. Note the larger relative size of properties, lower density, and the existence of backyards and greenery. Scale is the same as 4.

²³ By contrast, the model may be a better choice when operating in a disaster zone.

²⁴ Students of marketing strategy will recognize this as a variation of Microsoft’s enormously successful “Where do you want to go today” campaign.

²⁵ http://en.wikipedia.org/wiki/Middle_class

²⁶ Ibid 16.

²⁷ Ibid 16

2.2 Intelligence Operations

Intelligence Operations is responsible for determining what the enemy might be planning. In asymmetrical warfare, this typically translates to sifting through significant human intelligence (HUMINT), collected through direct contact with locals. Clearly a critical component of these operations are developing sources and relationships within the community of interest.

We believe demographic models can help identify, and reach, population segments that may be pre-disposed to actively attempt affecting a change within their environment²⁸. The most optimal point of focus for intelligence operations, therefore, is at the *Information Search*, and *Post-Commit* phases, though with different messages supporting the same campaign objective. Specifically, communications targeting those in the information search phase are designed to help the individual form a positive opinion and then solicit a commitment. By contrast, communication focusing on the post-commit phase have two distinct objectives: One designed to exploit any “buyers remorse” if the individual’s commitment was contrary to campaign’s objective; and one designed to solicit referrals and shore up support within a cohort group.

2.2.1 Information Search Models²⁹

Once a need is identified, individuals enter the *information Search* phase to locate possible solutions. Information search is typically divided into three sub-phases³⁰: Brand Awareness, Consideration, and Information Integration. The outcome of the search is a list of alternatives, ranked subjectively and objectively, based on the criteria used by individual; creating several opportunities for the S2, not only in terms of competing with other alternatives, but also in terms of defining the evaluation criteria.

2.2.2 Brand Awareness

Awareness is measured in terms of frequency of *exposure*, typically to advertising, and *forgetting*³¹, both of which are expressed in probabilistic terms. The communication goal is to broadly distribute a simple message, designed only to focus on the brand and to instigate curiosity for further investigation. Mass media advertising is an example of how brand awareness is typically achieved. It has been shown that advertising is most effective when the message is matched to a cohort segment’s demographic attributes. This synergy could be achieved through message text, associated imagery³², or the delivery medium³³. We believe responsibility to build brand awareness should rest with the intelligence operations, given their potential access to upcoming competitive positioning by the adversary and, more importantly, the presumed knowledge of pending field operations.

Building a positive brand in a conflict zone is a considerable challenge since the effort may continually be negated through necessary field operations. Given this constraint,

²⁸ Different does *not* necessarily mean “democratic” or friendly to US interests.

²⁹ Encompasses but does not exclusively refer to information retrieval or online search.

³⁰ G. Lilien, P. Kotler, K. Moorthy, *Marketing Models*, Prentice Hall, NJ, 1992.

³¹ R. Blattberg, A. Jeuland, *A Micro-Modeling Approach to Investigate the Advertising-Slaes Relationship*, in *Management Science*, Vol 27, no 9, 1981.

³² For example including picture of an infant and using the word “baby” in the message

³³ For example advertising in specialty magazines, such as perhaps *Dentist Monthly*.

targeting messages to specific demographic cohorts, particularly those who benefit directly or indirectly from field operations, becomes pivotal to success. In fact we have seen this attribute in the Iraqi theatre with the Sunnis and Kurds who have evolved into a single cohort with positive response to US presence that is motivated by security and the fear of Shi'a dominance. Given the long history of animosity between the two demographics, the formation of single cohort creates an important opportunity in analyzing its sub-segments along other demographic variables beyond ethnicity. The analysis may uncover emerging cohort groups along other demographic attributes, perhaps income, level of education, or family size, therefore enable creation of specific communication to facilitate the overall objective of “winning hearts and minds” and to solicit cooperation.

2.2.3 Consideration and Information Integration

We consider this combined stage as the time when the individual is actively creating a ranked list of alternatives. Marketing discipline communication designed for this phase usually uses a range of instruments such as product reviews and side-by-side comparisons. In a political campaign an additional option, debate, is also available.

The purpose of communication focused on this stage is to relate specific *technical or logical aspects* to an individual's specific *needs*, thereby creating an *emotional bond* between the message objective and an individual's needs³⁴. Demographic profiles support this stage by enabling design of messages focused on specific cross section of attributes, such as physical security, income, and profession. An overlay variable, geographic location, can immediately highlight areas where cohorts concentrate (as illustrated in Figure 2), making it easier to select a delivery medium. The location is particularly important in a conflict zone where delivery via electronic medium such as television may be hindered due to lack of electricity or cost of running a generator, making options such as billboard a more viable delivery medium.

As with a typical marketing campaign, communications at this stage are crucial in that they are the “last chance” to influence individual's choice. As discussed next, changing an individual's choice is significantly more difficult, and takes much longer time, once a commitment is made.

The topic of information search, in general, and consideration and information integration in particular, has received much attention from marketing and psychology. As the result, a wide range of quantitative and qualitative models have been developed and studied³⁵. In our context, however, we feel that the most appropriate model is one developed by Midgley³⁶ who suggested five types of information seeking: Peer Assisted, Spouse Assisted, Extensive Search, and two classes of Minimal (Deliberate and Decisive) Search. Furthermore, it has also been shown that information search – and follow-on consideration and ranking – are primarily based on uncertainty about alternatives and, once a set of alternatives is available, uncertainty about which to choose³⁷.

³⁴ Solomon, M., *Consumer Behavior*, 7th Edition, Prentice Hall, 2006.

³⁵ Naert, P., Leeflang, P., *Building Implementable Marketing Models*, Springer, 1st Edition, 1978.

³⁶ Midgley, D., *Patterns of Interpersonal Information Seeking for the Purchase of a Symbolic Product*, Journal of Marketing Research, Vol. 20, Feb 1983.

³⁷ Urbany, J., Dickson, P., Wilkie, W., *Buyer Uncertainty and Information Search*, Journal of Consumer Research, Vol. 156, Sep 1989.

Given the above, a reasonably clear set of target demographics profiles immediately emerges. Primary target demographics would match the five identified modes of information seeking. The first two are easiest to design a campaign for. Strong peer cohorts are typically formed along the demographic attributes of age, gender, and profession, religion, and ethnicity, with the strength of a recommendation, e.g. peer assistance, directly proportional to the number of matching variables, normalized by time. Messages targeting spouse-assisted segment is also easy to compose, though the normalizing factor is culture and not time³⁸.

Of the remaining three³⁹, we believe minimal search will be the most difficult to work with as the primary final ranking is, typically, influenced by a celebrity, a mentor, or others in leadership or authority position. As suggested by the category reference, individuals using this mode of information search are typically *told* what to choose – either directly, e.g. through a sermon where the local clergy calls for certain type of action, or indirectly – e.g. through passive suggestion when a popular movie star uses a particular product. While these *endorsements* have a significant impact on individual behavior⁴⁰, the individual must possess a certain level of pre-disposition. For example, given a football star's testimonial, a football fan can easily be swayed for a choice of running shoes, whereas someone with no interest in the sport will, most likely, not factor the testimonial in a final ranking of alternatives.

Determining “follower demographics” is reasonably challenging as successful leaders appeal to multiple demographics and even more complex cross-sections of demographic profiles. However, it is safe to assume that most followers do have something in common with the leader. One reason communications at this stage is recommended as a task for Intelligence Operations is that presumably the intelligence section can quickly develop a profile of an emerging (friendly or adversary) leader; which can be the starting point of identifying demographic variables to build a profile.

2.3.4 Post-Commit Models

Typical post-commit models deal primarily with individual's satisfaction with the choice he or she had made. The communications in this phase specifically look to exploit any potential *buyer's remorse* to re-open the information integrations (ranking of choices) because the individual will have naturally eliminated the previous top choice, potentially creating another opportunity.

The communications process at this stage is somewhat more complex in that it must be consistent and executed over a long(er) time period with the goal of converting those who have committed against our interests. This is particularly difficult in the military context since, due to troop rotation, organizational memory maybe short-lived. Further difficulty also stems from the fact that in a conflict zone most individuals are, at least outwardly, committed to at least one of the forces involved. To survive, they may even appear aligned with many of the forces involved or attempt to blend in as a member of a

³⁸ In some cultures, for example, each spouse has clear, often traditional, *areas of responsibility* and will simply make any decision that falls within that boundary. In other cultures any decision involving the family unit requires some discussion and both spouses are actively involved in the process.

³⁹ We have intentionally skipped discussing the Extensive Searchers because, in our context, we do not expect a large member for this cohort group.

⁴⁰ http://en.wikipedia.org/wiki/Celebrity_endorsement

different demographic group⁴¹. It is our opinion that post-commit campaigns should be designed and managed by the Intelligence Section, and assume members of a target demographic cohort group are committed to the adversary until proven otherwise. Viewed in this light, campaigns designed for this phase will focus on encouraging the individual to consider alternatives. It is important, in our opinion, that the alternatives are at a micro level, that require small changes in the individual's attitude, as opposed to grand ideological or religious alternatives. These small choices, organized to encourage behavioral change overtime will eventually synchronize with the individual's existing needs and an opportunity for change is at hand.

Post-commitment models are primarily *learning* models, where the individual's experience during this phase is proven to impact future choice and attitude⁴². However, it is also show that there is no single, comprehensive theory of post-commitment behavior⁴³ and it is often traced back to a combination of demographic attributes such as age, income. A typical example of this perspective⁴⁴ is “complainers tend to earn higher incomes, have more education, have professional jobs, and are younger⁴⁵” – giving us a starting demographic profile to test against a learning model, with a feedback loop.

As an example we once again draw on the successful campaigns to change smoking and drunk driving habits. The initial campaigns focused on the individual, presenting him with choices that required major commitments and life-style changes. Analysis of anti-smoking campaigns⁴⁶, shows positive response traction when campaigns focused on small actions, e.g. “delay the first cigarette in the morning” message, and the impact of smoking on more urgent needs and personal relationships, e.g. “kissing a smoker is like licking an ash tray” message. Both messages were part of the campaign aimed at the young male (college and recent graduates) demographic⁴⁷.

3. Conclusion

We reviewed establish methods of modeling individual behavior, as practiced in the marketing discipline. We also explored utility of demographics, and demographic profiles, as they are the foundation of most predictive marketing models. Finally, we identified specific command functions with a significant civilian interaction component and discussed how demographic profiles and marketing behavior models can be used to support command functions in a conflict zone.

4. References

Provided in footnotes.

⁴¹ http://counterterrorismblog.org/2007/06/strategic_implications_of_the_1.php

⁴² Beardebm W., Teel, J., *Selected Determinants of Consumer Satisfaction and Complaint Reports*, Journal of Marketing Research, Vol. 20, Feb 1983.

⁴³ Blodgett, G., Granbois, D. *Toward an integrated conceptual model of consumer complaining behavior*. Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior, Vol5, 1992.

⁴⁴ Oh, D., *Complaining Behavior of Public Library Users in South Korea*, on <http://www.ugr.es/~alozano/Translations/ComplainingBehavior.doc>

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