



Net-Centric Marketing & Information Superiority

An Allinio Whitepaper

Abstract: The military concept of “C⁴ISR” or “Network-Centric” warfare is a potent metaphor that helps Marketers think clearly about how an enterprise needs to stay competitive in the 21st Century. Net-Centric technologies have transformed fighting units that can now gather, store, analyze, share and act upon battlespace data more efficiently, thus achieving an “Information Superiority” which dramatically increases the likelihood of victory over adversaries. Instead of “battlespace,” enterprises are in a “marketplace,” where the ability to efficiently move Marketing data with digital tools to the right stakeholders (most importantly the “fighting unit” known as Sales) will amplify the probability of achieving organizational objectives. But this is not a “nice to have” option; becoming a Net-Centric Marketing organization is a transformational process that must occur in order to survive and win; if a firm does not make that transformation, it will be operating blindly in a marketplace full of valuable data, losing significant revenue opportunities or even failing completely.

A New Marketing Model is Needed

The growing reliance on communication and computing technologies by organizations is a phenomenon that is both irreversible and necessary. Data is flowing from more sources and at volumes never before imagined, and Marketers today face a tremendous challenge in finding and managing the relevant data that aligns Marketing with Sales and enables revenue for the organization.

While the recent catch-all phrase of “Web 2.0,” implies truly remarkable technologies and a proactive marketing culture, it should not be looked upon as a definitive marketing ecosystem, but rather diverse components of a yet undefined ecosystem

“Closed Loop Marketing,” another popular concept, incorporates lead generation, nurturing, and scoring, but does not include intelligence gathering and fails to create the mindset that Marketers need to effectively *direct* an organization rather than merely *manage* campaigns and tactics. Additionally, it does not integrate the diverse sources of online and offline data that are critical to decision making and the capturing of

revenue opportunities. So it makes sense that a better approach for improving Marketing effectiveness and inevitably the enterprise is to adopt a model that is truly comprehensive and capable of explaining how data is gathered, stored, analyzed, shared and acted upon.

Corporations are armies with generals, (C-level), lieutenants (mid-management), and infantrymen (sales people). Marketers are the staff officers, quartermasters and scouts that supply the army with training, weapons, ammunition, and hard-to-get information.

“Taking a hill” is denying a competitor from having a customer. The “spoils of war” are the revenue streams and profits one enjoys from winning the “battle.” While there is no bloodshed, loss is painful and may ultimately spell “death” for the organization. This is an analogy that rings true for anyone who competes every day in the for-profit world. Therefore, today’s Marketers should embrace a compelling military concept that is current, in use, and successful – the concept of C⁴ISR or “Net-Centricity.”

The Military Concept of C⁴ISR

C⁴ISR is an evolving principle credited to US Navy Vice Admiral Arthur Cebrowski and John Garstka, who originated the notion for the United States military in the 1990s. Other pioneers helped define Network-Centric Warfare, most notably David S. Alberts and Frederick P. Stein, who worked with Admiral Garstka at the U.S. Department of Defense and wrote a comprehensive book, *Network Centric Warfare – Developing and Leveraging Information Superiority*, at the end of the 20th Century. C⁴ISR has been embraced and championed by the U.S. Department of Defense leaders because of the belief that it would make the U.S. overwhelmingly superior in its fighting capability.

C⁴ISR stands for “Command, Control, Communications, Computing, Intelligence, Surveillance, and Reconnaissance” and derives from earlier acronyms describing components of this concept. More than just another military acronym, C⁴ISR is the strategic and tactical leveraging of technology to create speed, accuracy, and efficiency in the battlefield, especially in the context of joint operations between the various armed services, and U.S. allies.

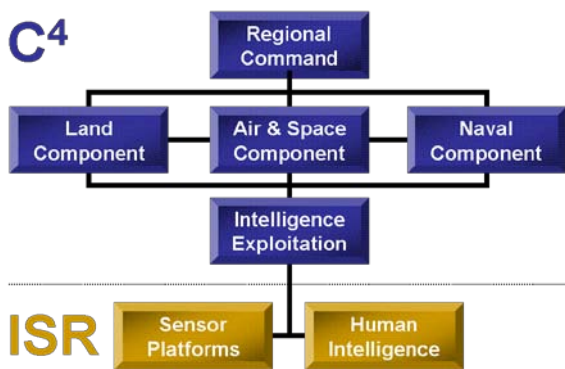


Figure 1. – The Basic Military C⁴ISR Model

In simplest terms as illustrated above in Figure 1, C⁴ISR encompasses the gathering of data, the processing of that data, and the distribution of that data to various entities that should act upon that data, all under a centralized authority.

Along with this acronym is a phrase called “network centric warfare,” “net-centric warfare,” or “net centrality” emphasizing the imperative of efficiently linking a wide array of stakeholders for coordinated operations through the best technology.

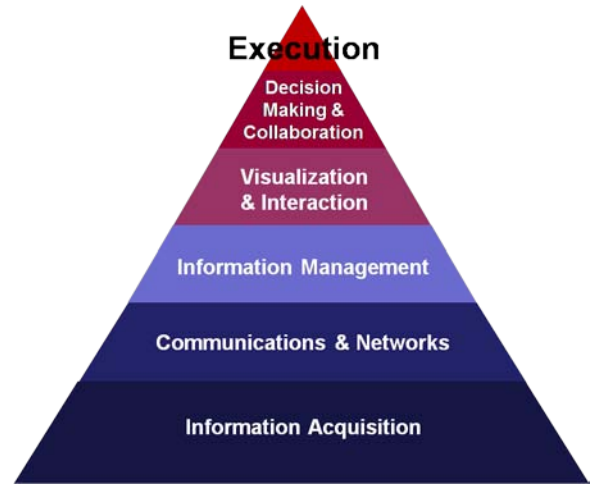


Figure 2. –Basic Military C⁴ISR Data Flow Model (SPAWAR)

As shown in Figure 2, the flow of data through the net-centric organization results in a sequence of operations that ultimately leads to a decision resulting in an action, whether executed by a unit such as a vessel or an individual such as a sniper. Hence, “Sensor to Shooter” is another descriptive phrase for this concept that implies:

1. The data collecting device, whether it be a satellite utilizing remote sensing technology, or something as innovative as nano-devices spread in a field that detect movement of metal objects;
2. The intermediaries that accept the data and quickly transport it securely over a network, process and store the data and determine who needs to know the information derived from that data and securely relays it to them immediately; and
3. The “Boots on the Ground” that quickly engage or neutralize the target from a close proximity, reporting back other pertinent data that can be analyzed, shared and acted upon for other missions.

The Application of C⁴ISR to Marketing within the Enterprise

Commerce, of course, should not be considered as an activity with the same intensity and stakes as warfare, but nevertheless there is value in taking concepts from this most extreme form of conflict; and rightly so, because Net-Centric Marketing extends well beyond having broadband, a robust web analytics application and slick online campaigns. Information superiority will matter more in the next phase of globalized business.

The commercial world, then, should think in terms of “Sensor to Sales Channel,” implying, for example:

1. The data collecting device, whether it be a demand generation platform, video equipped kiosk in a mall, or something that enables interaction with an aware or even initially unaware prospect;
2. The intermediaries that transport the gathered data securely over a network, process and store the data and determine who needs to know the information derived from that data and relays it securely to them; and
3. The “Wingtips on the Street” or the sales people that engage and/or close the prospect from a close proximity (face to face) or over the phone (or chat), reporting back other pertinent data that can be analyzed, shared and acted upon for other client engagements (surveys, customer support, cross-sell/up-sell, etc.)

Net-Centric Marketing incorporates many disparate platforms and links them in order to provide the Marketing professional with an accurate window into the marketing and sales environment in which his or her organization is operating. Furthermore, it provides “Actionable Intelligence” for the Marketer by creating as complete a picture as possible of the real-time marketing environment and giving him or her the right

choices on how to pro-act or react. Ultimately, it gives an organization the information superiority it needs to outmaneuver its competition.

In the private sector, many of the components for Net-Centric Marketing are available in a Software as a Service (SaaS), or cloud computing model. However, there certainly are many requirements for customization that should be recognized due to factors within particular verticals or markets; with time there will be solutions that cater to all but the most esoteric of enterprises.

Both “building or buying” Net-Centric capability at this particular point in time most likely demands a long consultative sale followed by a long and sometimes “painful” transformational effort that no doubt causes resistance or upheaval in the organization.

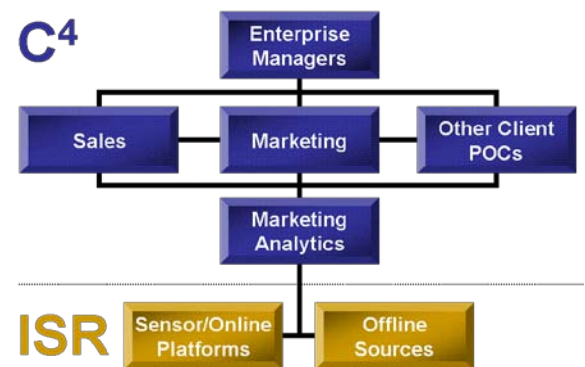


Figure 3. – A Prototypical C⁴ISR Marketing Model

Figure 3 expands upon Figure 1 and is adapted for the commercial enterprise. The next few sections of this whitepaper explain the various functions within this C⁴ISR Marketing model and how ultimately the Marketing organization is given information for which it may act on different platforms. Across the enterprise are the main customer touching entities: Sales, Marketing, and other Point of Contacts such as Customer Service, all reporting to Executive Managers.

The “ISR” Portion: Intelligence, Surveillance & Reconnaissance

Gathering market data has become more critical than ever. Net-Centric Marketing allows for a scale of collecting and processing data never before seen. The ability to conduct polling over the web has been prevalent for years but in the past few years survey technologies have increased in sophistication and can be implemented rapidly; Marketers can now see answers to questions and trends as they are entered directly by the survey respondents.

With social networking platforms exploding, it is imperative for marketers to gather and use information from the conversations they observe or have with users and to connect figure what is relevant to selling. The various associations that users collectively create will become a vast and intricate matrix of data that will be suitable for sophisticated data mining and will serve as an ongoing source of information that influences product and marketing decisions.

Social network analysis tools can be used by the Net-Centric Marketer to collect data from individuals and their networks. These tools allow the collection of a considerable volume of data from a diverse and complex set of relationships, the analysis of the data and the relationships behind that data, and predictive outcomes, including data from blogs, who is linking to them or getting RSS feeds from them, and other statistics can be gathered for analysis from such tools.

Physical Marketing Surveillance

Mobile and location technologies dovetail well into ISR. These technologies, such as global positioning systems (GPS), RFID, and others can be used throughout a network to locate users and things. The users themselves can use this technology— for instance, a salesperson can already drive to a destination with the help of onboard GPS, but imagine finding a prospect in a noisy, crowded convention center where one

cannot hear the other over the cell phone (let alone hear the ring) so needs another method of search. Technologically astute companies looking for low-cost sensing and robust self-organizing networks with small data transmission volumes should explore sensor networking. For example, a convention management company, which currently may lease badge readers to exhibitors, will now be able to install a sensor mesh network throughout the tradeshow facility.

Acting as a dynamic mesh of peer nodes, each of which includes simple networking, computing and sensing capability, the sensor mesh network can interface with RFID embedded badges that tell premium paying exhibitors who is coming down the aisle towards their booth, enabling the attendants to watch out for specific prospects that may be more inclined to buy their products and services.

Additionally, these networks can document traffic flow through the trade show floor help determine floor plan design and pricing schemes for booth locations of future events. Exhibitors could also have a better approximation of traffic numbers by their booth and make better buying decisions. A scenario like this could also be captured for analysis via a video system; retailers and casinos are already using digital video for security, and the same systems can be used by Marketers to gather information.

Given the better resolution, search, and playback capabilities of newer digital video technologies that can be deployed within traditional environments, marketers will be able to extract information and achieve a better understanding of both individual and crowd behaviors in general traffic and point of sale areas. Such knowledge in turn will allow them to provide actionable intelligence to their sales channels, whether they are self service kiosks or even sales clerks on the retail store floor. Ultimately, buying behavior in the physical world can be understood by video technologies

Company UAVs?

In the military, Unmanned Aerial Vehicles (UAVs) fly in theaters of operation, remotely controlled by an individual with a joystick, gathering data to be used elsewhere. Other modes of UVs are terrestrial, marine surface, and submarine-based and can be and capable of lethal engagement with enemies.

Needless to say, Fortune 500 companies are not about to launch unmanned vehicles to spy over, on, or under competitors' properties and no one is implying that they should; the easier access to and proliferation of ISR platforms do not justify unethical acts such as corporate espionage.

Data gathering platforms which have been used commercially for years, such as remote sensing on satellites, are already providing greater capabilities and value for marketers, and other robotic platforms will eventually be developed for commercial data gathering procedures. Marketers for real estate-related goods and services, for example, can look at commercially available space-based photographs, determine the conditions of roofing or landscaping, use positioning to determine property owners, and conduct direct marketing campaigns, all from the same computer. Such remote controlled or unmanned, distance-based data gathering tools, or fundamentally robots, are part of the Net-Centric concept, and may possess an element of interactivity.

Imagine a high-endurance robotic blimp replacing the current manned versions that fly over outdoor sporting events. Equipped with large LCD displays, pre-programmed events with GPS coordinates to fly over, it could run contextual ads based what on is known about the season ticket holders below and additionally display images or text impulsively uploaded from cell phone toting spectators below for contests that are voted on by the other spectators present, creating a data gathering spree for multiple advertisers and the ad platform.

Meanwhile, other data gathered ranging from the brands and models of vehicles in the adjacent parking lots to the regional traffic patterns surrounding the venue at the completion of the event can trigger contextual ads on the blimp, nearby billboards and popular radio stations that steer customers towards deals on new cars, or restaurants on better routes, or to download a custom digital video of the event just witnessed to one's home entertainment center, ready for replay upon arrival.

While this may not happen anytime in the near future, it is a feasible extension of the present situation where a person walking in a mall is being sent Bluetooth messages on their cell phone announcing sales and coupons from merchants in the mall, all based on the demographics of the cell phone owner. Net-Centric Marketing will be the driver behind the hypothetical but more comprehensive and not-so-far-fetched blimp scenario described above.

Before this is all dismissed as part of a great budget-busting marketing pipe dream, remember that Net-Centric Marketing research can start fairly easily. For example, focus groups can be a more valuable tool in the arsenal of the Net-Centric Marketer. Instead of one-way mirrors and videotape and crisp one hundred dollar bills, there are webcasts with webcams and Amazon.com or other gift certificates emailed instantly to participants upon completion of the focus group. Also, now there can be many more observers over a large geographic area, and the pool for qualified target demographics can be larger because of the greater search area.

Logical Marketing Surveillance

Web analytics tools, including ones that study user behavior and the context of user generated content are emerging and will be critical to the Net-Centric Marketer. Much is already being written by others regarding these tools, and it is the purpose of this Whitepaper to merely frame them in the

context of the C⁴ISR Marketing model. There will be an increasing emphasis on investment in this space because surveying the growing amount of online activity of prospects, customers, partners, investors and of course competitors. Obviously Marketing must keep vigilance as to what is occurring in cyberspace.

While “cyber war” is a real concern and every enterprise needs to safeguard its digital access, the key here once again is to take advantage of the ability to monitor and analyze relevant online happenings in order to defend the reputation of the firm, discover new channels or uses for a product or service, and most importantly deliver qualified leads to the Sales department.

An example of a pure “logical” surveillance could occur within a virtual world, which is a unique type of social media platform, offering an interesting opportunity to understand consumers in a physical simulation. The very act of designing and creating an avatar may yield information about a consumers tastes and preferences; what they wear, the colors they select, what they call themselves and other “physical” characteristics of the avatar, whether realistic or fantastical can be observed and gathered by a human participating in the virtual world or even a “bot” that can quantify certain elements of that avatar.

The data from observing what an avatar does (flies, walks, drives, dances, etc.), and how it interacts with its environment and other avatars can be observed, recorded, categorized, and acted upon. While virtual worlds such as Second Life have hit a plateau with regard to participation, they nevertheless can represent distinct segments that are of interest to niche marketers; and despite their detractors, the market for virtual products within those virtual worlds has been significant.

Bots themselves will continue to be problematic. While most Marketers are familiar with spiders and other bots utilized by the major search engines, what is really

known about the extent that bots permeate the Internet? Which are friendly and which are foes? We all need to be wary of global organized crime that is conducting its own illicit “marketing” on the web, invading computers, commandeering them, and then engaging in activities such as spamming.

How can businesses further protect their assets from illegal activity – How proactive should they be? Must they resort to industry collaboration or can they depend on the government and what they buy off the shelves? Beyond “honey pots,” can a firm employ “sentry” or “mercenary” bots before their firewall? Can logical surveillance be legally used to be pre-emptive against criminal or even legal activity that can damage a brand and put the enterprise at a strategic disadvantage? And what about the ongoing privacy debate regarding behavioral targeting? While privacy issues will undoubtedly arise regarding surveillance by Marketers both online and offline, enabling technologies that can provide context to visual quantitative and qualitative data may be too valuable to ignore.

Marketers can now track certain data on competitors just as easily as those competitors can track it themselves. It is easy to subscribe to and analyze a competitor’s RSS feed or email newsletter, webinars, etc. With the spread of blogging, SEO/SEM, and website analytics or other tools, Marketers can establish KPIs that enable them to quickly compare their competitor’s campaign effectiveness, customer perceptions, and other indicators of message penetration, popularity, and behavioral responses by customers.

Human Intelligence

As in warfare, the benefits of technology for Marketers do not make Human Intelligence (HUMINT) obsolete; the direct observation by humans of an event or environment is just as critical as ever. As always, the better the HUMINT is, the greater the probability of a desirable outcome will be.

Digital video recording of a focus group should not replace live visual observation of that focus group; Customers are human and most likely desire or enjoy interacting with other humans.

Human interaction and observation of customers should always be utilized when possible; in the commercial sector, Sales and Marketing are the main sources of HUMINT and by far, Sales is probably the greatest source of information, especially on the individuals involved in customer relationships. The challenge is taking the highly anecdotal and subjective data from the Sales channel, aggregating it, and mining patterns and strategic information from it.

CRM applications are still the best platforms for recording and tracking the observations of individual relationships, but often it requires the discipline of an enlightened Sales organization to input the data. Eventually the logging of those and observations in the form of notes or interviews could be instantly analyzed for keywords that are alerted to others when they occur so the information may be shared with enterprise stakeholders as quickly as possible. The emerging technologies that are becoming available to Marketers should be adopted to augment HUMINT – clearly surveillance cameras don't get tired, the volume of data gathering and storage potential by ISR systems for Marketing within the enterprise will be cost effective in the long run.

The C⁴ Portion: Command, Control, Communication & Computing

C⁴ responsibilities require up-to-date equipment, robust networks, and comprehensive business rules to be followed by a Marketing executive in planning, directing, and executing in order to achieve marketing objectives. As in war, the speed, accuracy, and correct routing of data is critical. The sooner the deal, the sooner the revenue stream is established, the better for the enterprise.

Command & Control

Command & Control denotes the capability to act upon an opportunity. For this to occur, the Marketer must be given the right information and access to decision support mechanisms. Popular thought says that the customer “controls” the brand or message and hence the success of a product, so the thought of Command & Control may sound counter-intuitive and passé; however, presentation of Command & Control is certainly not about controlling the content of conversations- it is about controlling the flow of data within and from the enterprise.

For Command & Control to work properly, business rules must be defined in order to create the proper routing of information so as not to overwhelm any level within the Marketing hierarchy, especially as one goes higher up the pyramid. Even in a flatter organizational structure, the relevant KPIs must be limited as much as possible and other actionable intelligence must be prioritized and relevant to firm objectives. Given that objectives may be changed or amended, the supporting data sources used to attain those objectives must be re-evaluated and replaced when necessary.

The innovative tools that support Command & Control help create consistency in the flow of data and its content. Enterprise Marketing Management (EMM) is probably the most comprehensive platform for the purposes of “command.” Marketing Resource Management (MRM) or Digital Asset Management (DAM) tools facilitate consolidating, tagging, annotating, storing, and retrieving of digital assets such as photographs, designs, videos, animations, sounds, music, and content. They will also help foster consistency of digital assets and speed the process to get these assets reformatted for sales materials or other communications to a particular audience. Collectively, these tools also help with budgeting and resource allocation much like Enterprise Resource Planning (ERP) tools.

Command & Control tools such as CRM, email management, and lead nurturing/scoring platforms are proving their value by enabling visibility of customer buying behavior in the form of executive dashboards that graphically present developing situations from which to make decisions; both successes and threats can be quickly determined based on established business rules. These tools are also a growing data repository from which other trends, when tied with previously offline data, can be extracted for decision makers.

Communications

Obviously the telephone will continue to be a major tool to the Net-Centric Marketer for communications. For outbound and inbound data gathering and selling, the telephone has proven its versatility and from an interactive perspective, remains widely accepted by customers. Enhancing the capabilities of voice-based platforms are Internet based Interactive Voice Response (IVR) systems, which are a significant advancement over legacy IVR platforms.

And of course, there is the web itself, which allows for multimedia communications between organizations and audiences. Chat, web conferencing, avatars, and other interfaces such as the various popular social media platforms like Facebook or Twitter will elevate the value of dialog with their ability to gather and archive more data.

In many instances, communication will occur solely via social media; for other organizations, depending on the industry, social media communication may not be as prevalent and offline information will need to be transponded online. What is true, however, is that communications will increasingly occur in digital form; whether in real time or captured later.

Additionally, events that trigger communications such as email campaigns will be more commonplace than they already are today and artificial intelligence (AI) based

platforms will eventually allow commonplace communications between avatars or virtual, AI based salespeople and customers online.

Beneath the application layer will be a growing broadband infrastructure that will deliver packets in greater volumes than ever before for video and other bandwidth-intensive purposes. Bandwidth costs, which have dramatically decreased since the beginning of the century, will continue to become more affordable

Mobile and other wireless technologies such as RFID will play a more dominant role in Net-Centric Marketing; we already see Bluetooth as a great way to reach people on a one-to-one basis. All of these technologies will be adapted to give sales channels tasks and information for customer interactions, or will be adapted to directly interact with the customers themselves.

Mobile capabilities bring the power of the Internet to the remote or itinerant employee with customer facing responsibilities. With today's smart phones, most web-based applications enable a sales person or teleworking individual full access to whatever actionable intelligence they have been granted privileges. Given the analytics in the back office, business rules will alert a user to the right information, hopefully within a critical window of time that allows the user to move a buying opportunity down the sales funnel.

Communications will continue to be enhanced to expedite conversations between Marketing, Sales and other relevant Points of Contact within the enterprise, along with customer dialog. These communications will continue to be executed through a converged marketing platform that relies on many former silos that grew within the organization but are now integrated.

Computing

Higher processing power is a given; so is distributed processing power. Moore's and Metcalfe's Laws are some of the catalysts behind Net-Centric Marketing. Key to the normal business rules of "what" information gets processed "when" will be an additional layer that of artificial intelligence that can determine "where" new data should get routed, and what should happen when anomalies are discovered.

Feeds from ISR related activities will directly go to processing and data mining applications that operate in real time, producing actionable intelligence that will then go to internal clients and sales for swift execution, using communications or yet other applications that function as customer touch points.

The most important applications at this model's C⁴ portion mainly involve analytics. There are a wide variety of analytics tools available to Marketers; however, many require the gathering and storage of data in a native repository; Since there are many types of data, hence many repositories, there is still a hurdle to find applications to mine both legacy repositories and currently acquired data. With time, this challenge will be overcome with new applications that meet that requirement.

Web, text, sentient, contextual, behavioral, speech, and other flavors of analytics are emerging – some types are more proven and accepted than others. Lead nurturing and scoring platforms take some of these elements to provide the organization with better information on what prospect is "ready" for engagement by Sales. Further progress in these genres of analytics will enable Net-Centric Marketers to link various types of analytical data and paint a better picture of what a qualified lead is, or predict prospect behavior that may be relevant to an organization's objectives.

A *mashup* is a simple set of codes that can be quickly and inexpensively set up to take multiple feeds of disparate data and consolidate them into an intuitive display. Mashups, now associated with things more of a frivolous or consumer nature, will become more commonplace on a business desktop and will become the dashboards of choice in ad hoc environments.

Sales & Post-Sales Impact

Ultimately, none of these C⁴ tools will make any difference unless their use results in, revenue generation for the enterprise. The constant flow of data that needs to be gathered, stored, analyzed, shared and acted upon does not end once Marketing gives Sales a qualified lead. Hopefully the actionable intelligence given to sales will lead to a revenue stream for the enterprise and at that point, the order entry system and customer care systems become extremely important for gathering and synthesizing more data for the lifecycle of that customer.

Just like the pre-sales activity before it, post-sales relationships will consist of online and offline data gathering that will be conducted for maintaining customers or cross-selling/upwelling them. Now there are open or private user groups to monitor, warranty claims to examine, product features to add or remove, etc. The ability to better tie these disparate systems through the network into the larger Marketing Automation ecosystem may mitigate customer churn if companies can see dissatisfaction trends and proactively mend them before contracts expire or a product needs replacing.

The IT Department Role & Business Transformation of the Organization

In the years to come, the IT Department will be a critical partner in effort to transform into a Net-Centric Marketing organization. Requirements for new communications technologies and hardware will need to be specified; additionally, these tools will need to be evaluated, prioritized, and acquired for deployment, upgrading, or replacement.

IT will serve as a consultative liaison between Marketing and other departments such as Finance, Legal, Operations, and Sales as the data they share becomes more enmeshed and blurred, and shall help execute and police the business rules and privileges for sharing upon which those departments have agreed. The key is “consultative”- it is the Marketer that will operate the system that should be positively impacting Sales. IT should not be worrying about its fiefdom of data and system silos that pervade the contemporary enterprise.

Issues of interoperability, conflicts of managerial philosophy and resulting political battles between parties over control and access to data will hamper progress, and IT may be the cause of these occurrences or merely referees; as in every previous disruptive technology or new model, some organizations will fail to fully embrace Net-Centric Marketing, in spite of IT’s best support efforts. They should be warned that they will lag behind their competitors and find itself at a strategic disadvantage.

There may be friction as savvy Marketers are able to “plug and play” various Net-Centric Marketing components into its overall platform without requiring IT’s assistance. Think of how in the mid 1990s, web hosting and T1s were procured by IT departments. Now even individuals are sophisticated enough to buy their own network services and launch e-commerce sites in days as opposed to months, since standards have evolved and technology costs have been drastically reduced.

IT, which is burdened with diverse responsibilities such as phone systems, security systems, may not have the bandwidth to learn a “new” system. However, IT should be motivated to enable this strategic imperative. Ultimately, the transformation to a C⁴ISR or Net-Centric Marketing requires, like any major investment, executive blessing and support.

Figure 4 depicts an expanded, more contextual Net-Centric Marketing model. Both online and offline (written surveys, 3rd party printed data, etc.) data are fed into a Marketing Automation (M/A) system, run through analytics, stored in CRM and other data warehouses, and accessed by appropriate decision makers. This will give Marketers what is known as “full spectrum” visibility on “all battlefronts.”

These decision makers then execute their decision utilizing resources from Digital Asset Management platforms with other outbound M/A tools and processes that engage customers and prospects. Then data from ongoing interactions is fed back into the system, creating a new set of actionable intelligence and information superiority that allows the enterprise to sell more, outpacing their competitors.

Part of this ecosystem naturally includes the Sales ordering system and the customer service system, both of which are sources of data that can be analyzed and appended to the CRM system. Additionally, in the case of online “self provisioning” systems for frequent purchases by customers, additional data can be gathered and stored into that CRM system.

In time, broader “off-the-shelf” or cloud offerings of Net-Centric Marketing services will be the rule, not the exception. Marketing will continue to need computing power to perform its role in support of sales, and IT should be relieved to know that it will be able focus on other critical enterprise needs yet will be there to assist with important functions like data warehousing and security.

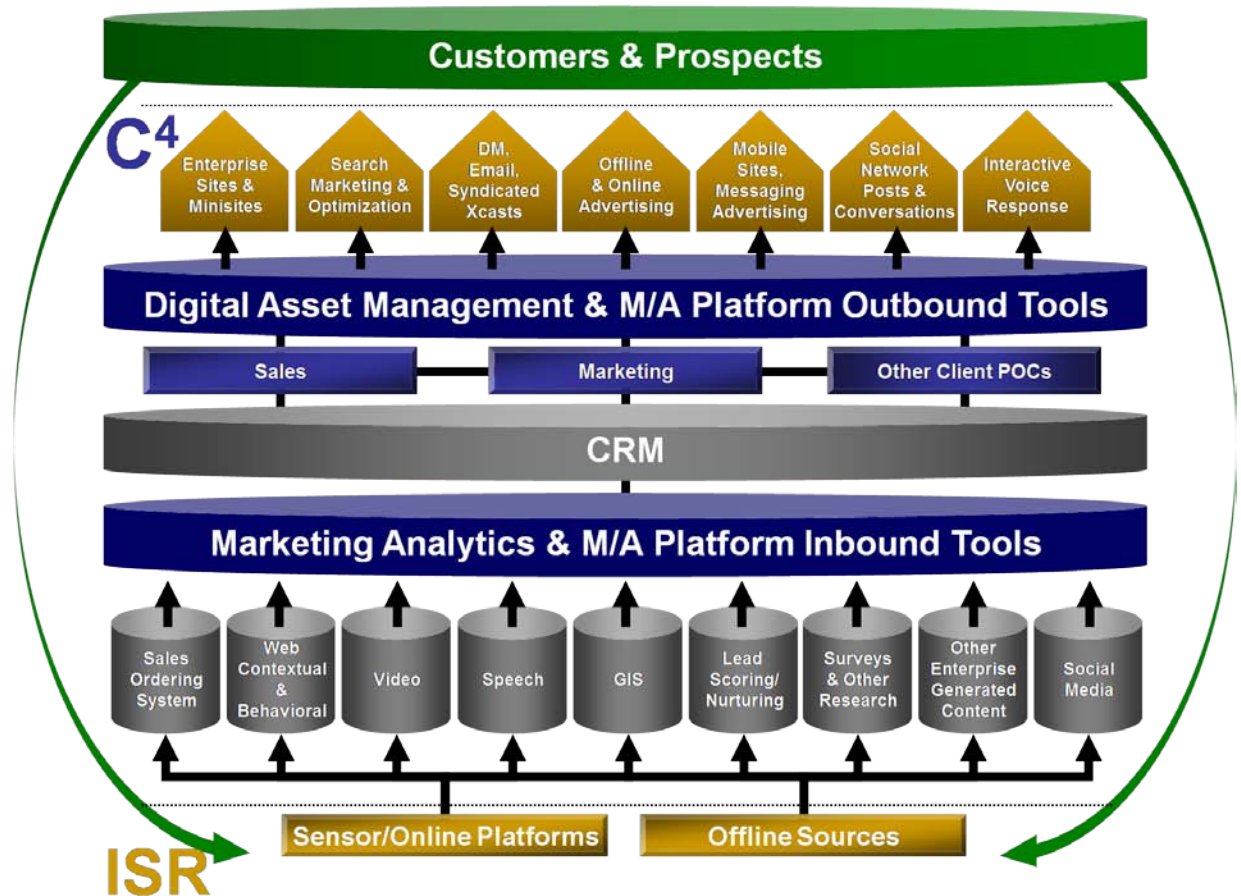


Figure 4. –Expanded Net-Centric Marketing Model

The Challenge for Today's Marketer

The speed to react to an ever changing and volatile business environment requires technology to aid the Marketer in sorting through terabytes of constantly flowing and archived data. That data must be prioritized and distilled into actionable intelligence, and shared with the proper enterprise stakeholders such as sales and product development.

Net-Centric Marketing is more than just the behavioral or contextual serving of ads, or lead nurturing, or reducing shopping cart drop rates, or even the monitoring of social network activity. It is a way of thinking of all a market's sources of information and all the touch points with a customer or other stakeholder, whether these sources or touch points be geospatial, virtual, or sequential. It allows the Marketer to extend the network to interoperable nodes or devices over time.

However, the underlying technology is only an enabler, and the key to Net-Centric Marketing is not merely acquiring and deploying technology, but changing the behavior of individuals and organizations who would benefit from it. Today's Marketer has enough of a challenge merely obtaining budgetary approval for traditionally marketing activity; adoption of new technologies will widely be perceived as risky endeavors, and many Marketers who do not have insightful executives will be denied the proper investment that would enable the transformation into a Net-Centric Marketing organization.

Additionally, the "creative" or "branding" marketer will need to be replaced by marketers who are better technologists, linguists, and analysts. The "art" of Marketing must submit to the "science" of marketing because ultimately science provides quantitative and objective measurement which is more valuable than

the qualitative and subjective value the artistic side brings. Even with the blessing and financial support of executive management, such transformation will be a slow and painful process; However, the pain of change will not be as great as the pain of not changing. Someone else in the competitive arena will weather the storm, and ultimately the firm that best gathers, stores, analyzes and shares data within the enterprise to discern and act upon actionable intelligence will be at a significant strategic advantage.

Net-Centric Marketing may sound like something reserved only for the Global 1000 or other large organization that has legions of marketers with IT and statistical backgrounds and large budgets. Far from it. As disparate data becomes more coordinated online, or easier to categorize and access although offline, whether due to a commercial effort or social network, the overall long term cost of that data will decrease and thus more firms (read: smaller firms) will be able to utilize it.

In a case of advertising, for example, once again imagine that blimp over a stadium at a an event, monitoring the game and knowing there were 5 minutes left and the stadium concessions' pizza was sold out, so it more frequently displays an ad of a nearby restaurant that specializes in pizza; the advertiser did not need to own and control the entire network; it just needed access to a portion of that network when certain business rules or situational criteria were met. It didn't need to own the "Sensor;" it just needed to be with the "Shooter."

Conclusion

The concept of C⁴ISR or Net-Centric operations is already validated in one arena and can be convincingly and appropriately applied to the Marketing and Sales functions of an organization, thus creating a C⁴ISR or Net-Centric Marketing organization which achieves informational superiority over its competitors. Such superiority is attained by

creating the infrastructure that efficiently moves the right data from the right sources to the right elements that can act upon that data in ways that drive revenue.

Industrial Age cultures do not work well in the Digital Age, and there are even superficial Information Age mentalities which will resist these concepts due to fear of change and lack of strategic competency. The Marketers that are better at gathering, processing, sharing, and acting upon the various types of data that make up their segment's information ecosystem will fare better than those that don't perform those activities. And Net-Centric Marketing, the increasingly unified system that bridges various sources of information and customer touch-points, is the way that will best make a Marketer "victorious" in their "battles."

The time to be developing C⁴ISR or Net-Centric Marketing culture is *now* and organizations need to thoroughly plan how to give employees the tools and motivation to work Net-Centrically. There will be dead ends and mistakes along the way towards such revolutionary business transformation, but remaining passive will place an enterprise in a strategic disadvantage compared to competitors that make the investment.

Transformation to a Net-Centric Marketing organization will benefit employees, and ultimately customers, investors, and other stakeholders in that organization. The military use of C⁴ISR technologies is a compelling metaphor because it demands the utmost of efficiency and leaves no room for mistakes, which are costly.

Someday Net-Centric Marketing may be so commonplace that Marketers will revert to dropping the Net-Centric qualifying adjective altogether. For those that believe this, it will only be a matter of time. Until then, the issues of Net-Centric Marketing need to be raised, shared, discussed, planned, and implemented to start the long business transformation process.

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