An Innovative and More Effective Means to Manage the Communication Process between Colleges and Prospective Students

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The recruitment process in higher education is becoming increasingly complex and compressed. Students are waiting longer to reveal their interest to colleges and submitting applications to more colleges than ever before. There exists only a brief window, between the point at which a prospective student becomes "known" to a college and the point at which that student makes a matriculation decision, when the opportunity exists for targeted communication to simultaneously inform and influence the decision-making process.

The stakes are very high for both parties. Students are making the largest investment decision of their lives to-date. Colleges are attempting to balance their financial well-being and market position by shaping the size and profile of their incoming classes. As competition for students increases dramatically over the next decade in the face of rising attendance costs, changing geodemographics, and a decline in the number of high school graduates, each college's ability to survive, much less prosper, will depend directly on its ability to identify, qualify, and communicate with prospective students in an more efficient and cost-effective manner. Research indicates that students will gravitate toward the institution that can best meet their informational needs, and colleges will seek to meet these needs through the innovative use of modeling and communication technologies.

The current generation of analytical modeling tools have already gained some popularity as a means to segment prospect populations based on historical data, and then to recalibrate manual communication strategies that support market positioning. However, these static methods are retrospective in nature and require several years of consistent historical data for implementation, limiting their appeal. More importantly, these current methods are not responsive to a college's need to manage real-time communication processes and respond

quickly to changing competitive pressures. They fail to realize the potential inherent in a real-time combination of data mining, rules-driven communication, and business process analysis.

In light of this situation, 422 Group has received a grant from the National Science Foundation (NSF) to develop an empirically-based adaptive method for automating the response logic needed to successfully negotiate critical decision-making steps in the communication process between colleges and prospective students. Through the application of database-embedded and integrated modeling and pattern analysis techniques, key decision points are identified in the communication process *as they occur*. The system then individually targets "at-risk" prospects for communication interventions designed to enhance affinity, encourage continued participation in the recruitment process, and enhance the likelihood of matriculation.

The basic premise of the proposal is that the current generation of commercial CRM (Constituent Relationship Management) enterprise systems, while holding great promise, fails to fully integrate advanced data acquisition, embedded data-mining, predictive modeling and communication management capabilities. This is especially problematic in higher education where colleges must respond quickly to changes in communication patterns with prospective students over an extended period of time to maintain and deepen the evolving relationship.

Furthermore, the current generation of commercial CRM software does not provide the ability to leverage the ongoing interactive history between an organization and its targeted constituencies in a manner that supports a dynamic and responsive communication flow. At best, the historical interactions from previous sales cycles can be analyzed and statistical models can be developed to predict the likely outcome of a particular communication strategy. While these historical models can inform the development of rules-based communication sequences for subsequent sales (or recruitment) cycles, there is a significant time of lag between the detection of a communication event, and the system's ability to respond. As a result, the efficacy of the communication rules are limited by the fact that both the historical predictive models and the rules engine itself are essentially static within a cycle, while the evolution of the relationship between prospect and college is not.

The situation is further complicated by the fact that higher education is constrained by a recruitment cycle that can last as long as three years (starting with high school sophomores) in which the purchase decision is a high-stakes, one-time event (typically enrollment for a fall semester) that represents the culmination of a very complex and expensive communications-based relationship. The result? It takes at least one year to apply any knowledge gleaned from communication with a particular cohort of prospective students, leaving little or no opportunity to modify current recruitment strategies for a particular type of student based on changes that are happening now.

This is a significant limitation and, despite the inherent potential, the primary reason why commercial CRM systems have experienced only modest penetration in the higher education market as a means to increase the efficacy and cost-effectiveness of the constituent communication process. While interest is growing, colleges will remain reluctant to adopt this new technology until the obstacles associated with the integration of affordable real-time data mining and modeling and CRM database management are overcome.

422 Group proposes to address this situation by developing a method to analyze behavioral interactions as they occur, detect and identify changing patterns in near real-time, and then modify rules-driven communication strategies based on emerging trends detected at both the individual and market level.

The proposed 422 Group research and development effort will build on three components of the company's Continuum 422 CRM™ product and its associated database architecture. First, Continuum 422 CRM provides a comprehensive multi-dimensional history of the interactions between all members of the relationship matrix, including the college, prospective students, associated parents, external testing companies, and high school contacts. Second, the analytics capability of Continuum 422 CRM is built on a proprietary higher education-specific Unified Data Model architecture (UDM). The UDM gathers and organizes critical information and makes it available in a format conducive to database mining and statistical analysis. Third, this UDM architecture supports a "rules-based" workflow engine that can be used to target students (and other constituencies), react to changes in applied recruitment/marketing strategies, anticipate communication needs, and deliver tailored communication that can be evaluated in the context of an institution's progress toward current recruitment and enrollment goals.

The techniques and products that emerge from the 422 Group proposal will better enable colleges to effectively and efficiently combine computing, communication, and business process advances to more rapidly adapt to competitive market pressures and become leaders in a growing global education market.

About 422 Group

422 Group LLC is a Microsoft Gold Certified technology and professional services company that helps colleges and universities manage relationships more effectively. 422 Group professionals are among the most experienced product development people associated with higher education relationship management today. Over the past twenty-seven years they've worked to develop specialized CRM systems, business intelligence tools and market research services for more than 500 colleges and universities in the U.S. and abroad.

About the National Science Foundation and the Small Business Innovation Research Program

The National Science Foundation (NSF) is an independent federal agency created by Congress in 1950 "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense…" Within it, the Small Business Innovation Research (SBIR) program and its parallel Small Business Technology Transfer (STTR) program provide more than $2 billion a year to small companies to support the development of innovative technologies and products with significant commercial potential.

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