Background on the Analytical Consulting Lab

The Analytical Consulting Lab (ACL) is part of the Kellogg experiential learning initiative. The specific interest in the Analytical Consulting Lab comes out of the deep demand for business leaders that can provide guidance in analysis and focus that analysis to specific business questions. Additionally, many recruiters and employers have commented that finding talent that bridges the business and analytical communities is difficult. The ACL strives to provide a real-world learning experience for students to work with sponsoring companies on business questions that revolve around analysis. Students work in teams using analysis (broadly defined) to answer current and important business questions.

Kellogg has a strong tradition in bringing analysis to bear on business questions. In fact, the Analytical Consulting Major is the second most popular major at Kellogg, suggesting that not only does the ACL support this major, but it will resonate strongly with the goals of many a Kellogg MBA student.

Course Details

The ACL is offered as DECS-915, a full credit course. Most projects in the ACL are sponsored by Kellogg alumni, at very senior levels in their organizations. Students taking the ACL are assured a strong learning experience and a commitment from the firm to provide access to decision maker and information that will make the experience meaningful.

Details on projects, companies, and information about selecting projects is available at: http://kellogg.northwestern.edu/faculty/walker/htm/acl
Application Process
Students interested in the ACL must submit an application for project selection.

The application permits optimal project assignment, based on student goals, client needs, and project requirements.

Applications are accepted by the Kellogg Experiential Learning system. Students should apply for DECS 915 via the Kellogg Experiential Learning System, at:
https://www4.kellogg.northwestern.edu/el/

The application start date is Jan 30.
The application close date is Feb 12.
Decision date is on or before Feb 16 (before Round 1 bidding)

Key parts of this application include:
- Resume or CV
- List of courses taken at Kellogg with grades
- Description of any professional Analytical Experience (no specific experience needed)
- Description of any professional Consulting Experience (no specific experience needed)
- Special service to Kellogg
- Reasons for taking the ACL
- Goals for taking the ACL
- Project Choice #1
- Project Choice #2
- Any fellow desired Kellogg student for a team (limit of one student to specify). Team member preference is only considered if both people select each other.
- Other information that you may wish to share in your application, personal goals, career aspirations, etc.

Student information in the application process is used in formulating teams and assigning projects so that goals, backgrounds, skills, and expectations are all best aligned.

Project Assignment
Student assignments to client projects will be based on individual preferences, requested skill sets and industry experience, and team member diversity. Every attempt will be made to grant students their first or second choice of projects. Student information is collected via the application. Students may select one fellow student for a project. This fellow student selection is honored as possible, if the both students select each other.

Students will be notified about their project assignments during the term before the class. All efforts are taken to accommodate first choices, while forming teams with an appropriate set of skills and interests.

Case Packet and Readings
As this course is an experiential one, there are no specific cases to prepare. However, many students have looked for examples of companies that have excelled at Analytics. Also, as the
course emphasizes consulting and best practices in a professional client engagement, there is a need to consider some of these best practices. Given this, the following texts are recommended and optional:

2) Competing on Analytics, Tom Davenport and Jeanne Harris, HBS

These texts are easily purchased on-line and used at great prices, so these are not requested in the bookstore.

Course Meetings

As with other experiential courses, the focus is on the team project and its delivery to the sponsoring company.

Teams will meet with the Professor on a regularly and frequent basis in order to discuss the analysis, flow of work, final presentation and delivery to the sponsoring team. The class will also meet with the prescribed schedule to review concepts and themes important in being successful with the analytical consulting function and in order to provide presentations for the purpose of group learning.

All Group Meetings are to be held with the team and the Professor at a pre-defined time that works mutually. Meetings with the Professor and Client must conclude before 4:30PM on weekdays. PTMBA students are welcome to the class, but cautioned on this scheduling constraint. Students who cannot make meetings in person are encouraged and welcome to join via telephone.

Pre-term activities

- Project identification
- Team formation
- Identification of Team Liaison to Client
- Identification of Team Liaison to Professor
- Client Introduction
- Project description
- Schedule first group meeting with Professor
- Schedule first client meeting with Client

Week I:

Class Session I (April 1, 2015, 11:00-12:30 and 1:30-3:00)

- Getting Started with DECS 915
- Managing Project Ambiguity
- Managing Teams
- Overview of the Consulting Approach
- Dealing with Data
- Descriptive Statistics
- Using Tools: JMP, Excel, @Risk
- STATA Resources at Kellogg
Guest Speaker: NWU Librarian:
Using Business Databases from the NWU Library for market and firm measurement.
Bring your laptop and be ready to explore databases!

Week II:

Group Meeting I:
- Developing a Work Plan, Project Analysis
- Examples of Past Analysis
- Use of Graphics
- Best Practices in Presentation of Data
- Building Points Through Analysis

Week III:

Group Meeting II:
- Preliminary Analysis of Data
- Teams to bring descriptive statistics to meeting with Professor

Work Plans due to Professor

Week IV

Group Meeting III: Focus on Data and Analysis
- Address questions and issues in analysis

Week V

Group Meeting IV: Prep for Midpoint Check-in

- Class Session II (Apr 29, 2015 11:00 AM-12:30 PM and 1:30-3:00):
  - Mid-term progress review and team mini-presentations
  - Mid-point document due at beginning of class

Week VI:

Group Meeting V:
- Mid-point feedback, planning for next phase

Week VII

Group Meeting VI:
- As per team needs

Week VIII

Group Meeting VII:
- As per team needs

Week IX

Group Meeting IX:
- Dry-run of presentation with Professor

Week X
Class Session III (June 3, 11:00-12:30 PM and 1:30-3:00PM)

Project Findings

**Final project deliverable due to Professor and Client on June 3, 2015**

Meetings with Clients to be held and presentations made to client in person during or before final week of classes.

As in any professional consulting engagement, the students are requested to regularly meet with the client to receive input, data, direction of project goals, and feedback on the progress as needed. All clients are committed and dedicated to fulfilling the learning and business aspect of the project.

Teams may schedule additional time with the Professor as needed and as available.

**Grading**

Grading of the project is driven largely by the quality of the team project. The Professor will evaluate the project, its analysis, presentation, and delivery on the following major points:

- **Analysis:**
  - Quality of analysis (thoroughness, appropriateness)
  - Clarity and quality of model summary and description
  - Intellectual impact (was the analysis creative, novel, clever, or otherwise compelling?)
- **Project Document**
  - Quality of project description
  - Quality of analysis summary
  - Quality of recommendations and conclusions
  - Use of meaningful graphs, graphs, and presentation of data
- **Presentation Documents**
  - Quality of presentation
  - Professional impact of the presentation
  - Ability to communicate main points of the analysis and recommendations
- **Team Meetings**
  - Preparation
  - Organization
  - Progress

The Professor will ask the client company to provide feedback on the same above points.

Peer evaluations will also be collected from each member. Each student must rate their teammates on the following dimensions:

- Intellectual and creative contribution
- Workload and willingness to take initiative
- Organization, preparation, and availability
- Collaboration and respect for peers
Peer evaluations will be on a 1-10 scale with 10 being excellent and 1 being poor. All peer evaluations will be treated confidentially.

All ACL students must participate, as participation is also important to make this a meaningful learning experience for all involved.

**Grade Breakdown**

Professor Evaluation of Final project materials and presentation: 30%
Professor Evaluation of Work plan and Mid-point review: 20%
Client Evaluation of Final project materials and presentation: 20%
Peer Evaluations (*): 15%
Preparation during team meetings and class participation: 15%

* Note: The Professor reserves the right to adjust any student’s final grade up or down by a full letter grade in the event that the student’s peers unanimously score his or her contributions significantly above or below the overall team effort.

**Role of the Professor**

The Professor serves as an aide, counselor, and advisor for the team. The Professor does not conduct the analysis, but will provide detailed direction on analytical approaches. The Professor does not serve as the team liaison or representative to the client. The team must organize itself and identify such a liaison. The Professor may accompany the team to select team meetings and or participate in calls, but the Professor cannot in practically, attend all such meetings.

In the event that the client or the ACL student team encounter an incompatibility or encounter an issue, the Professor will intervene to remedy the situation.

The Professor may also resolve project assignments, as needed.

**Role of the Team**

The team will consist of 3 or 4 Kellogg MBA students working as a team to complete analysis, as defined by the client as agreed to before the start of the academic term.

The team should be mindful to control the amount of time that is required of the client. This means being prepared for meetings, having a designated liaison to schedule meetings, request information, and follow-through with next steps. This level of preparation and understanding is needed as most clients sponsor this project but do not allocate a full-time associate to work with the ACL team.

The team should expect to contribute about 300-400 hours over the 10-week period to this ACL project. This is a reasonable expectation for a team working on a project and is consistent with other experiential and lab courses at Kellogg. This translates to 8-10 hours per person per week.
The team will produce a white paper that documents the study, results, and recommendations. The team will also prepare a presentation and deliver it in person to the client and its team. A reduced version with emphasis on key findings is also to be presented at the last class.

Role of the Client

The client provides the real-world learning opportunity, data needed to complete the appropriate analysis, and feedback on the quality of the project and its analysis. The Client is not expect to solve the problem, but should provide ample expertise, data, and contextual information to the ACL team.

Prerequisites

All students in the ACL must have completed DECS core. There are no other requirements.

Some FAQs:

What is the Analytical Consulting Lab?
It is a course available to Kellogg MBA students that are interested in the use of analytics in business. Students must take specific prerequisites and have strong academic performance in such classes to take the Analytical Consulting Lab. Students work in teams to resolve a real-work business problem using analytics.

What do you mean by Analytics?
It is meant to be broad but includes the use of specific quantitative approaches, such as regression analysis, time series analysis, forecasting, market segmentation, data mining, optimization, logistical analysis, scenario simulation, and risk analysis, as examples. In particular, we mean solving a business problem using data and applying one of these quantitative approaches.

How can PTMBA Students participate?

The ACL is open to PTMBA students on a limited basis, subject to all meetings with the Client and Professor being conducted during normal business hours, which are taken as before 5PM on weekdays only. Please contact Dr. Russell Walker on any questions regarding your interest on the course. PTMBA students should organize in groups.

How can Saturday MBA Students participate?

At this time the ACL is not available to Saturday MBA students, given the need to meet in person with the Client and Professor on a regular basis outside of the Saturday format of the Kellogg Saturday MBA.

How does this experience benefit the students?
Kellogg MBA students taking the ACL will work on a real-world problem under the direction of a Kellogg faculty member. The opportunity to apply analytical theory and learn about a business,
SPRING 2015 ANALYTICAL CONSULTING LAB: DECS 915
Department of Managerial Economics and Decision Sciences
Kellogg School of Management • Northwestern University
Professor: Russell Walker

make recommendations, and bring together many aspects of their business education is
unparalleled. We also ask that the students focus on how to communicate the results of analysis in
the context of business decision-making. For students interested in moving to an industry to deep
in analytics after graduation or developing new business skills in analytics, this course will be
very attractive.

The Analytical Consulting Major is one of the most popular majors at Kellogg and students have
expressed deep interest in developing strong skills in analytics. This course meets an interest in
our students and provides them an experiential learning opportunity that will prepare them for
business opportunities.

How does the Client benefit from this opportunity?
The ACL is an intensive analytics elective that attracts some of our most analytically talented
MBA students. It is expected that the student group of 4 will commit about 400 working hours to
the project. Additionally, the student project will be overseen by a Kellogg faculty member that
has expertise in analytics and its application in business.

We expect that the project deliverables, recommendations, and report will provide direct value to
your organization. However, we also believe that the project provides your organization and
opportunity to determine how and where to invest in more analytics. If this includes the
acquisition of more analytical talent, the project provides an excellent conduit to members of our
student body that are talented and interested in this space.

How does the team work with the Client?
For the student team, the partnering company is a client. They will conduct their analysis and
provide recommendations through a report and presentation in the same format and in the same
manner as a consulting service. The faculty member also serves as an important liaison between
the partner and the student, serving to manage time commitments and negotiate deliverables.
It is expected that the student team can meet with and speak with key members of your team that can
help them answer questions relevant to the analysis.

Which software will we use?
It really depends on the project and your familiarity with software packages. This course is
software agnostic, meaning most software packages are acceptable. The course does not have as a
goal to teach a particular package, but rather to enable analytics in a business project. You are
welcome to use software of your choice. Most projects can well be completed with a combination
of Excel and one statistical package. Students having taken DECS 915 have found using JMP,
STATA, R, SPSS, and @Risk useful. Kellogg provides support and access to STATA. Access to
JMP, @RISK, STATA, and SPSS will be discussed in the course. If you are unsure or unfamiliar
with statistical software, we will discuss that during our first meeting. Some packages may have a
minimal cost.

What about the data?
To make this experience valuable to the students and the to solve the business problem at hand,
we do need access to data. It is important that the data be available before the project begins.
Additionally, the project should make use of “scrubbed” data, that is data that is free of specific
information that would be sensitive or otherwise governed by a law, such as social security numbers of customers or names of customers.

**What types of business problems can be considered?**

As analytics is helpful in many business functions, we are open to many applications of analytics. Specific business problems in marketing, forecasting, customer segmentation, pricing, commodity analysis, logistics, risk management, operations, inventory leveling, supply chain improvement, and scenario planning are sure to provide great analytical opportunities.

**Will the analysis become public?**

The work between the students and your organization is considered confidential. If necessary, the students may be asked to sign a non-disclosure agreement. If this is necessary, we ask that the non-disclosure agreement be such that it does not prevent the students from seeking employment or from building on their experience gained on the project.

From time to time, such company-student projects lead to very interesting business lessons. As a leading business school, we are interested in sharing such lessons with our next generation students and business leaders. We do this through business cases. If such an opportunity exists with your project, we will seek your permission to relate the business lesson through a case study.

**How to I join the Class?**

First, you must meet the prerequisites. Then submit your application to Professor Russell Walker before the deadline. The application is used to build teams, assign you to one of your top project choices.

**Contact Information**

Please contact Russell Walker, Ph.D.
Via e-mail at russell-walker@kellogg.northwestern.edu
or via phone at +1 847 467 2148.
Welcome the Analytical Consulting Lab!

In the following pages, you will find candidate projects from sponsoring companies under the Analytical Consulting Lab (DECS 915) for Spring 2015.

The projects listed include working with actual company data, developing meaningful analytical models for managerial decision-making, and presenting results and recommendations to company executives. Most projects will require some level of Non-Disclosure Agreement (NDA) with the sponsoring company.

More information about the class can be found at its website: http://kellogg.northwestern.edu/faculty/walker/htm/acl/

Please feel free to contact me at 847 467 2148 or russell-walker@kellogg.northwestern.edu with any questions and interest

Thanks for your interest.

Russell Walker, Ph.D.
Clinical Associate Professor
Kellogg School of Management
Northwestern University
LinkedIn
WWW.LinkedIn.Com

About the Project

LinkedIn Talent Solutions products are utilized by businesses of all sizes. Most of the fortune 500 firms leverage our tools to help them find great talent for their businesses. Many of the LinkedIn Talent Solutions (LTS) products are software as a service subscriptions that are renewed annually. LinkedIn has a team of relationship managers that focuses on strengthening client relationships and renewing business annually. However, we always have a set of smaller customers who do not find value from our product on annual basis. We would like to double-click on this set of customers to understand whether or not they do or could come back to our product. What should our “winback” strategy be? What is the lifetime value of our smallest customers, knowing that some of them may take “breaks” from our service?
FEW Spirits
www.Fewspririts.com

About FEW Spirits
Founded as a dry community, Evanston was home to many influential advocates for Prohibition who effectively kept the city free of alcohol for more than one hundred years.

Though the city legalized drinking in the late Nineties, it took the perseverance of our Master Distiller, Paul Hletko, to reverse the antiquated liquor laws. With roots going back to some of Europe's fabled brewing families, Paul and FEW Spirits have marked the end of Evanston's Prohibition and given the city its very own craft distillery. FEW Spirits has won many awards for its novel take on small-batch gin, whiskey, and specialty spirits. The team will work with the partners on the project.

Project:

Over the past two quarters students have worked to help FEW Spirits build an inventory management model and a costing model. Now, FEW needs help with integrating the two models into a production planning model they already have. The result will be a integrated way of understanding its marketing plans and marketing costing structure. This quarter you will help create an analytical tool to help FEW take its knowledge about its future revenue, cost of production, and current production schedule to model out marketing budgets and timelines.
As we are a growing startup, we move quite fast so it’s important that we provide you updated project briefs to further entice potential class participants during project selection. I have modified both the firm description + project descriptions submitted earlier for you to use and incorporate in the spring term. And given we’re talking a few months in advance, these descriptions are subject to change a bit since we will likely make quite a bit of progress on our own between now and then. Zest Health, a growing venture-backed mHealth startup located in downtown Chicago, is reinventing the way consumers experience healthcare and how employers pay for it. By focusing on preventative care and disease management, Zest is able to improve member well-being which ultimately makes for happier and healthier employees. Our business model is built around a cloud-based platform and accompanying mobile applications for iOS and Android that offer members access to information and help when they need it.

**Project #1 - Financial scenario-planning**

As we continue to grow and onboard additional employer customers, we would like to engage the student team to conduct their analysis and provide recommendations specific to potential financial scenarios as well as the development of additional ROI models. In particular, we are looking for the team to conduct sophisticated analyses that considers various customer segments, pricing schemes, sales approaches, and general forecasting. The data would originate from multiple sources, including our CRM, online medical databases and previous internal projections. The end result will help inform the decision-making and overall trajectory of the company.

**Project #2 - Marketplace Business Operations**

We are soft-launching and refining our medical marketplace offering throughout early 2015. We would like support from the student team in designing and refining our marketplace loyalty and economic model(s). This includes detailing out accountability and liability tied to revenue as well as earning, redemption and fulfillment vehicles.

**Project #3 - Marketplace Customer Engagement**

As we prepare to launch our marketplace offering, we would like the student team to analyze how we could best engage our members. This could include:

- Optimizing product mix (e.g. provider services) by analyzing both quantitative market research and real-time member data as it is received along with business development opportunities

- Building analytical reporting and visualization tools based on student-driven hypotheses to enhance operational efficiency, inform the product roadmap and offer additional data-driven insights
Candidate Projects

There are multiple candidate projects with United Airlines and the Mileage Plus frequent flyer program. The projects will generally involve a study of customer redemption, reward use, search use and Internet tracking, new revenue creation, and partner involvement. The Mileage Plus program is an internationally recognized rewards program of premier status. Student teams will work on real projects, with real data, and present to senior executives. These projects are sponsored by executives in Mileage Plus, who have overseen previous ACL projects with Kellogg. Students may select from the below. Multiple projects with United are possible.

Project 1: FareLock Study

Review the financial impact of FareLock. Specifically, we’d like for the team to review the revenue associated with FareLock purchases, and the average price/availability on the flights where FareLock was purchased (to the extent we can get the data). Ultimately, we’re trying to determine:

- The demographics of a FareLock customer (MP status, leisure vs. business traveler, etc.)
- Purchase behavior (days from departure, booking class, likelihood of ticketing, etc.)
- Likelihood that the seat would have been purchased with/without a FareLock purchase
- Ideally, we’d like to include inventory spoilage implications, since these customers are holding inventory on flights without having purchased a ticket.

Project 2: A second project is forthcoming
Qantas Airways
www.qantas.com.au

Project Description:

Purpose: As a key input into Qantas & Jetstar network planning for the Australian domestic market, determine data-based elasticity approximations for the relationship between capacity changes in a given market and their effects on the RASK performance of carriers in that market.

Scope of Work:
- Review and analyse Qantas-provided historical data on capacity and RASK dynamics in the domestic market
- Isolate the correlation (regression analysis) between capacity change and RASK change, ideally by route or by type of route (subject to data availability)
- Based on the above, propose appropriate elasticity assumptions for effects of capacity change on Qantas, Virgin Australia, Jetstar & Tigerair Australia (a unique elasticity should be assumed for each carrier)

Deliverables:
- Summary of correlation analysis and findings
- Proposed elasticities for the four carriers on each of the most important domestic routes (as time and data allows) – e.g. SYD/MEL/BNE Triangle, SYD/MEL/BNE-ADL, East-West, representative leisure routes

Key Interfaces:
- Head of Qantas Group Strategy (primary)
- Manager of Qantas Group Strategy (primary)
- Head of Qantas Domestic Strategy
- Head of Qantas Domestic Network
- Head of Jetstar Network & Commercial

Confidentiality:
- Handling of data and sharing of findings would need to be treated with confidentiality (under an NDA)

Students will work with Reed Tanger, Head of Strategy, Kellogg MBA grad!
Menus of Change

www.MenusofChange.org

Project Descriptions
There are 2 projects available with Menus of Change. Each looks at a critical input to the world’s food supply. Risks associated with the use, availability, pricing, and environmental impact follow and will drive the risk-decision approach to the use of these food inputs.

Project 1: Sustainability, Transparency and Risk in the Food Industry
The food industry is at the intersection of some of the key risks impacting leading industries: Operational risk from climate and water constraints, reputational risk from poor labor and social conditions in supply chains, and financial risk from increasing volatility of key commodities. Some food companies are showing the strain on their bottom lines as supply chains grow more brittle while others are adopting new approaches that put transparency and corporate responsibility at the center of their strategies, creating vertically integrated “direct to farm” strategies like Mars and Starbucks which are investing in social development programs in key cocoa and coffee growing regions, Chipotle which selects the farmers its distributors and suppliers must work with, and others which are joining industry roundtables set up by global NGO’s like the World Wildlife Fund. While all show concern, this project is intended to determine what leading sustainable food and agriculture sourcing strategies may already be driving business success. The project would involve identifying a substantial universe of large US or global restaurant and consumer-facing food companies, probably publicly traded and with regular public reporting and correlate the types of supply chain transparency and sustainable sourcing strategies they use, if any, with their performance on key financial indicators (growth in shareholder value, revenue, profit) and also the rate of “surprises”, or unforeseen problems, in their supply chain that they announce to the markets.

Project 2: What Drives Meatier Returns or Less Meatier Returns
Much has been made in recent years about the environmental impact of meat and also the impact of climate change and water on meat and livestock production, including unprecedented cost increases and volatility. This comes at a time when a growing number of consumers are looking to increase the share of plant-based foods that eat, foregoing a meat for a few meals each week or seeking options that smaller amounts of meat. For instance, while McDonald’s is built around the quarter pounder, fast growing competitors like Five Guys feature a 1/8 pounder and Shake Shack and 1/2 mushroom patty and 1/2 beef double stack. New restaurant companies are being more overt, with companies like Chipotle, vc-backed Sweet Greens and Illinois own Roti Grille among the many that use meat as a condiment and offer a range of plant0-based options. Does the shift towards offers that feature more plants and a bit less meat. While that may match consumer values and also drive health and environmental benefits, what’s the impact on business performance. The project would involve identifying a set f plant-forward companies and compare
them to a set of legacy US or global restaurant and consumer-facing food companies, probably publicly traded and with regular public reporting and correlate their performance on key financial indicators (growth in shareholder value, revenue, profit) and also the rate of “surprises”, or unforeseen problems, in their supply chain that they announce to the markets.

This project is sponsored by Arlin Wasserman, a Founder and Director of the Menus of Change.
NorthShore Hospital

The NorthShore Center for Simulation and Innovation
www.NorthShore.org

About
The NorthShore Center for Simulation and Innovation (NCSI) at NorthShore University HealthSystem in Evanston, IL, recently expanded its simulation center to 13,000 square ft including 7 simulation rooms (2 fully operational trauma rooms, 3 patient rooms, and 2 operating rooms) and a surgical lab for advanced surgical training.

Our center is now in the top 5% nationally in terms of size for hospital-based simulation centers (ie not based directly on the campus of a medical school university campus) and our learner throughput is likely in the top 1% as we have 400-800 learners come through our center on any given month. We are multidisciplinary in nature with attendees from nursing, pre-hospital, medical students, residents in various fields, and attending physicians. As an institutionally based simulation center, our audience focuses more on "adult" learners (ie current practitioners - physicians and nurses) more than university-based medical school simulation centers who focus more on medical students and nursing students.

Candidate Projects are Below:

1. Creating the business case and operational workflow necessary to increase utilization of B-Line Simulation Management Software.
   a. This project would have the students working with our techs to determine the various components of the simulation management software that could be optimized. (For example, today, only a fraction of our users are actively engaged and using the system fully.)
   b. Project goals
      i. Decrease time/effort spent performing manual data entry by leveraging the simulation management software
      ii. Identifying ROI associated with technology upgrades to facilitate integration of B-line in workflows (iPads, kiosks)
      iii. Improving overall utilization of the system in both surgical and medical simulation - providing gap analysis of current functionality that is used vs. that which is under, or not utilized – and then identifying workplan to achieve integration.

2. Reviewing historical utilization rates by department/learner type, and identifying the correct allocation formula to achieve equitable distribution of expenses.
   a. Identify data sources – if data sources are not automated, identify mechanism to reduce manual workload associated with tabulating utilization
   b. Review yearly budget/financials, and identify potential allocation
back to departments – likely will need a few proposals given the political reality of non-revenue generating related expenses.

c. Review current utilization of the center
   i. Up-time
   ii. Down-time
   iii. Number of optimal FTE resources needed to staff center vs. how many resource employees are necessary

d. Given historical utilization, forecast the number of external courses needed for the center to break even in FY2014.
**Element Bars**

**www.ElementBars.com**

**About**
We are a custom energy bar company located in Chicago. This means that at http://www.ElementBars.com, customers can create their own custom energy bar by selecting from all natural and organic ingredients and then naming their own bar. Our whole food ingredients are carefully handpicked and kept as nature intended. Then we hand make our bars using the ingredients our customers choose, bake them in our ovens and deliver them freshly baked from our ovens to their doors. The Founder and CEO Jonathan Miller is a Kellogg alumnus from the Class of 2008. He has worked with several students from Kellogg – including hiring summer interns and serving as clients for other class projects. The Analytical Consulting Lab provides another great opportunity to provide students with rewarding experiences while allowing Element Bars to leverage student skills. Below are 3 projects of interest. The Analytical Consulting Lab provides another great opportunity to provide students with rewarding experiences while allowing Element Bars to leverage student skills. Below are 2 projects of interest.

**Project 1 – Search Engine Marketing and Search Engine Optimization**

Element Bars shows up in the search results set of Google for both “organic” search results (Search Engine Optimization - SEO) and paid placement (Search Engine Marketing – SEM). We would like to analyze which keywords are driving the highest lifetime value of customers and then think about transitioning expensive and competitive keywords to SEO, while keeping cheap and non-competitive keywords within our Adwords SEM campaign. The data we can provide includes purchase behavior, Google Adwords access, and Google Analytics access.

**Project 2 – Demographics of Purchasers via Google Analytics**

We have purchase data that is stored on our web analytics platform (Google Analytics) and also our internal order system, but this data has not been tied to demographic data (either internally collected or via 3rd party sources). We would like to tie these data sets together and then analyze the highest (and lowest) value customers for demographic trends. The data we can provide is sales data, customer data, and Google Analytics data.
Project: The secondary ticket market provides a wealth of information for sports organizations. We are looking for a group to analyze historical and current White Sox secondary market ticket transactions to give us a better understanding of what is transpiring and how that translates into insights that can inform primary market ticketing decisions.

*We will need all participants on this project to sign an NDA.

Students will work with Beth Grabowski – long time ACL supporter and Kellogg grad!
Have you ever wanted to get in at the ground-level of something game changing like Facebook or Square? Well, here’s your chance.

Overview

According to Forbes magazine*, “Shopping cart abandonment is one of the biggest curses in the ecommerce industry.”

Paydunk is a mobile payment startup that will revolutionize the mobile checkout experience for consumers. While other companies are racing to bring the online experience into the store, Paydunk will simplify the checkout process by bringing the familiar in-store payment experience (Swipe card, enter PIN, done) to mobile devices.

This innovative approach will completely change mobile commerce as we know it.

So, who benefits?

By reducing the steps, time and inputs necessary to complete a mobile transaction, consumers will experience a simplified and streamlined checkout process and retailers will see a reduction to their abandon rate, an increase in conversion rate and an improvement in consumer satisfaction.

Working with Paydunk

This is a unique opportunity to experience a fast-moving startup in its infancy stage. The founders have established relationships with key industry leaders and have begun working with enterprise retailers. The app is currently in production with a top mobile development company and is expected to be completed and ready for launch on February 23, 2015 on both iOS and Android.

Working directly with the company’s founders (yes, that means cell phones and emails), students will have full access to all business documentation and financial information.

Objective

Paydunk seeks to establish an effective launch strategy.

The current mobile checkout experience is cumbersome with the majority of users abandoning their shopping carts due to the poor checkout experience. This is expected to be over $8 billion in Q4 of 2014 alone… Paydunk will help retailers recapture those sales.

As a mobile payment application, Paydunk seeks to leverage existing industry data to help build models and financial projections. Students will leverage data from current market competitors such as PayPal, Google Wallet, Visa Checkout, Apple Pay and others to help define Paydunk’s initial trajectory. The analysis and recommendations provided by YOU, the student team, will be instrumental in the strategy and launch of Paydunk.
Paydunk has two unique customers: 1) the retailer and 2) the consumer. Attracting and retaining each customer type will have its own set of challenges and opportunities.

Goals:

1. Gauge the Market
   • Interview ecommerce leaders to gain market perspective and insights to opportunities to boost mobile sales
   • Perform competitive analysis of the market
   • Recommend launch market (Domestic vs. International, Regional vs. National)

2. Retailer Adoption & Traction
   • Develop the strategy for achieving retailer adoption and identify the cost of acquisition
   • Project reduction of abandon carts, incremental sales, conversion lift, and contribution to EBITDA
   • Determine the lifetime value of the Paydunk user to the retailer

3. Consumer Acceptance & Adoption
   • Develop the strategy for achieving consumer acceptance and identify the cost of acquisition
   • Determine the percentage of consumers driven to purchase due to an enhanced checkout experience and expectation for unique discounts or savings
   • Perform marketing spend analysis of consumer acceptance based on incentive value
   • Determine marketing capital required to achieve consumer acceptance
   • Determine the Critical Mass of users required for sustainability

The mobile commerce space is the fastest growing sector in digital today, with exponential growth over the next five years totaling $700 billion dollars annually. Paydunk is uniquely positioned to capitalize on this emerging market. Every aspect of YOUR effort on this project is integral to the successful launch of Paydunk.

The founders, Mike and Rob would encourage student teams during the project selection phase and throughout the entirety of the project, to please reach out by phone or by email for insight or with questions. We look forward to working with you soon!

Mike Marenick
Co-Founder
Mike@paydunk.com
973.396.8481

Robert McHugh
Co-Founder
Robert.McHugh@paydunk.com
973.396.8481

Additional Resources:

CORPORATE WEBSITES:
http://www.paydunk.com
http://www.paydunk.net

SOCIAL SITES:
https://www.linkedin.com/company/paydunk
https://www.facebook.com/paydunkllc
https://twitter.com/paydunk

TRADE SHOWS:
TECHDAY NEW YORK, April 23, 2015
https://techdayhq.com/events/ny-techday/participants/48
https://techdayhq.com/events/ny-techday
APP WORLD GERMANY, April 21-23, 2015
https://www.apps-world.net/germany/
https://www.apps-world.net/germany/exhibitions/exhibitors

*Reference:
Motorola Solutions (MSI) provides business- and mission-critical communication products and services to enterprises and governments. On any given day, every moment matters to someone, somewhere. And every moment, Motorola Solutions' innovations, products, and services play essential roles in people's lives.

We do this by connecting our customers to seamless communication networks, applications and services, by providing them with real-time information, and by arming them with intuitive, nearly indestructible radios and devices.

We help people be their best in the moments that matter.

The Strategy Analytics team at Motorola Solutions supports the Chief Strategy Officer by uncovering hidden insights about the business through rigorous and creative data analysis. Our work has significant visibility across the C-suite, and our analyses have led to numerous changes to the way we do business. Recent projects have included a product pricing analysis that revealed suboptimal pricing strategies and a revenue drivers model for what-if scenario analysis.

The theme of this quarter’s project will be predictive analytics. You will draw upon the knowledge gained from your DECS and strategy courses to answer the following questions:

1. What are the best external metrics that correlate to MSI’s revenue? How can we use these metrics to forecast both short and long term revenue

2. What do historical trends in revenue tell us about our customers’ buying behavior? How has it changed and how might we expect it to change in the future?

   a. Analyze historical buying patterns
   b. Analyze Install base, churn rate and replacement cycle
   c. Predict and integrate new product adoption

You will work side-by-side with the analytics team to answer these questions. Depending on the results of the project, you may have an opportunity to present your work to senior executives of the company.
**Northwestern University Sports**  
**www.nusports.com**

As the eye of this proverbial NCAA national storm, we would like a thorough assessment conducted on the myriad benefits supplied by Northwestern University to its near 500 student-athletes – along with an associated monetary value. We are in the process of aggregating these benefits, from tuition and books to sports medicine training and career consultation. Once finalized, we will craft an appropriate communication vehicle to educate future prospects and families, and our current student-athletes.

For a variety of reasons, an objective, well-reasoned analysis is vital moving forward. Similar assessments will be in great demand in the near future for all intercollegiate athletic departments across the country.
The Chicago Bulls Analytics Department is excited to partner with the Kellogg School of Management on a project for the Analytical Consulting Lab. The Bulls Analytics Department is dedicated to improving revenue streams (e.g. tickets, sponsorship, merchandise), driving enhanced fan engagement and optimizing overall marketing efforts. The specific challenge to be addressed will involve analyzing a very important segment of the Bulls customer base – the single game buyer. Data from a recently executed survey of the individual game buyer population will be used to identify ways to better message or engage these buyers in the future. In addition, the team will provide single game buyer transactional information to assess pricing strategy and whether that ties to buying habits of this segment. The resulting findings will be used to inform the sales strategy for the 2015-16 season. This is a unique opportunity to introduce yourself to the Bulls and work with employees across several functions including Analytics, Ticketing and Marketing. The Bulls look forward to collaborating with students excited about working in sports.

Students will work with Matt Kobe, Kellogg and DECS 915 ACL Alum!
Monterey Bay Aquarium
Seafood Watch
www.seafoodwatch.org

The Monterey Bay Aquarium is a leader in the care of the oceans and the health of fish and marine creatures. In order to better advise buyers of seafood, the Monterey Aquarium developed Seafood Watch (see seafoodwatch.org) that provides buyers advice and recommendations on the species of fish and shellfish to buy in order to promote sustainability and improve the wild stock of marine life.

In many ways, Seafood Watch has been a success. The remains a concern, however, that the US consumption of seafood is direct by many factors and may even be hyper sensitive to the Seafood Watch recommendations, putting new pressure on specific species and creation unforeseen consequences.

This study will examine the consumption and use of seafood in the US. Special focus will be given the importation of seafood and the economic value created by various participants. The goal is to leverage these insights to better understand who are the critical decision makers in the sourcing of sustainable seafood. For instance, should Seafood Watch focus on grocery stores, restaurants, food importers, ethnic food stores, sushi chefs, pet food producers, etc. and how specifically to communicate ego each of these groups.

Some analysis needed includes:

Look at the top categories of commodity seafood imported into the us (shrimp, tuna, farmed salmon, whitefish, crab)

- Figure out how much of each type is purchased by the major buyer segments (grocery, large restaurant companies, contract foodservice, government (schools, military), small restaurants)
- Make some commentary on whether the value added processing occurs outside the US or inside, if any.
- Make some commentary on drivers of economic risk in each category (fraud, sustainability, labor conditions, etc.)

The real nugget is to identify major buyers that hold greatest sway over the supply chains for each fish category and recommend how Seafood Watch can better influence them.