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Legendary Entertainment: Film Making in the Age of Analytics

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On the red eye flight back from Los Angeles to Boston, Matt Marolda T'02, reflected on his new role as Chief Analytics Officer for Legendary Pictures. Marolda had been recruited by Legendary CEO Thomas Tull to bring analytics to his film company. Tull was worried that the film company was becoming overconfident with their past successes such as the Hangover Trilogy, Pacific Rim, and The Dark Knight Rises. Marolda, who arrived at Legendary in 2013, has seen the reliance and confidence of Tull in using analytic information to make strategic decisions. During the interview process however, Marolda was clear to stress that analytics would not give Legendary the answers, but it would help the company base their decisions on facts rather than assumptions and increase the probability of success. While makinkg strategic decisions in uncertain environments is always a gamble, using analytics takes the gamble from playing a random play slot machine to playing black jack and being able to count cards. While Marolda felt the opportunity was clear, the thoughts of how much he had to learn about applying analytics to the film industry was preventing him from falling asleep on the flight.

A Start in Sports

Marolda founded the analytics company StratBridge in 1999. The initial successful product of StratBridge was StratTix. StratTix was an analysis tool that used data on potential customers and shifts in demand to make pricing and ticket promotion decisions. The analysis is similar to what airlines use to update and change pricing over the time period for a flight. After initial successful use by the Boston Red Sox, the dynamic pricing and revenue software was licensed by all of the National Basketball Association teams. It also began to be used by non-sports organizations such as music concert promoters.

StratBridge also developed StratEdge, a talent evaluation system for use by sports teams. Using player stats, video data, and scouting reports StratEdge assists sports organizations to evaluate and value players by generating player analytics. Often called 'moneyball' analysis (a term popularized by the book Moneyball: The Art of Winning an Unfair Game by Michael Lewis) the software system takes performance data and calculates statistics on player contributions, forecasts future success, and assigns monetary value. The software enables sports organizations to integrate video and player analysis so that coaches and front office personnel can now evaluate players more thoroughly. Capabilities include: player profile "snapshots," player comparisons, a proprietary "plays like" feature, and a player board for ranking players for drafts and free agency. Teams can build customized scouting reports with more than 100,000 pieces of information to track players, teams, leagues and agents.

Use of analytics such as that by StratBridge, is not without its critics. One criticism to this approach is that the approach is driven by a set of non-athletic 'nerds' who know little about playing the game, and are treating real teams as if they are playing fantasy sports. However, Marolda insists that his products are not trying to turn organizations into fantasy sports teams, but the analytics are inputs to the overall decision making. "It's true you can't ignore the quantitative information but you also can't ignore the stuff you see with your eyes," he says.

Looking for New Opportunities

In 2012 Marolda sold the player analytics portion of the business to XOS Digital (for more info see: [http://sportsvideo.org/main/blog/2012/07/20/xos-digital-acquires-stratedge-sports-analytics-service/ - sthash.lBPEYncW.dpuf](http://sportsvideo.org/main/blog/2012/07/20/xos-digital-acquires-stratedge-sports-analytics-service/)). One of the reasons Marolda sold StratEdge to XOS Digital was that the player analytics space was getting crowded with competitors, and many teams were bringing much of the analytic work in-house. Given that there are only a finite number of teams in each sport, the prospects for long-term growth were limited. Marolda began to look around for other industries where analytics was underused but could provide significant competitive advantage. After considering several industries, Marolda settled on the film industry and joined Legendary Entertainment (Legendary) in 2013. A year later, Legendary also acquired the yield pricing software platform StratTix, that had continued to be owned and operated by StratBridge.

The Film Industry

For background on movie development, read pages 7-13 of the case Warner Bros. Entertainment (9-610-036).

The Philosophy of Analytics

Companies have always used data to help inform decisions, but the access to large amounts of information – often termed "big data", coupled with increased computer and statistical processing power has created the opportunity to analyze data in new ways. Analytics uses huge quantities of data, social media information, location data, real-time response data, and much more to affect business performance. Organizations are starting to utilize such this information and analysis to generate solutions in new ways. The outcomes of the analytic process can provide a more comprehensive understanding of markets, customers, products, regulations, competitors, suppliers, and employees and more.

Early Success

Thomas Tull, CEO of Legendary, welcomed Marolda to Legendary with open arms. Tull had identified analytics as one way that Legendary could differentiate itself from typical film studios. As a smaller filmmaker, the company had to build a strategy to make smarter bets on its movies. Legendary's focus was on increasing the hit rate on movies, and getting bigger returns for each of its successes. Tull charged Marolda with building an Applied Analytics Group at Legendary. Marolda spent 18 months recruiting top minds from the world of analytics, dynamic pricing and the sports industry. The recruits included a Harvard astrophysicist who did his Ph.D. on very complex systems, and experts who designed dynamic pricing for the airline industry. The group eventually grew to be composed of 8 full-time people, with direct access to top management and film developers in the company.

Tull felt it was time for film companies for to be smarter in making decisions. "There's more information available today than has ever been available in terms of people putting their preferences and all kinds of information freely up online," said Tull. "We want to take advantage of that and be much more efficient about the way we run our business." Tull sought inspiration from the sports business and its use of applied analytics. "I've had a front row seat to a number of things, and I was frankly frustrated in the way in which we deploy capital for advertising films."[1] Tull said the goal was to take people that were used to taking very large data sets and apply that knowledge to have a real yield to real world problems.

Future in Film

Marolda was thinking about his advice on the first big decisions that Legendary had to make concerning upcoming films. He was determining what information he should be providing, and at what stage of the process should his group be most involved. He also marveled at how different his discussions with Tull are from the discussions most film companies have. Long-term, what should be the role of the group, what standard information should be provided for all films, and where would analytics provide the most value? These were all questions he was considering, when the phone rang and it was Tull. He had one question for Marolda, should we fund the $100 million new film or not? Marolda had the sense that his answer would have a huge impact on whether the film was funded, and it was an early test of the value of analytics for Legendary.

[1] Source: Legendary Pictures CEO talks tech that gave 'Godzilla' its box-office roar, John Daudiosi, Fortune, May 22, 2014.