

Leverage Machine Learning to Gain Competitive Advantage on Sports betting Industry

Real Life Applied Examples

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Artificial Intelligence in Online betting industry is all about monetizing customer understanding through relevance, accuracy and speed. It's not just a mainstream, "geek" phrase.



Learn

Segmentation ML Models
recognizing similar
customer characteristics



Predict

Classification algorithms
predicting customers'
future behavior



Propose

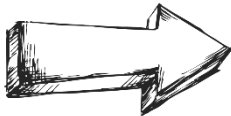
Recommendation ML
models to introduce
tailor-made customer
experience

Organizations increasingly use AI and ML applications to get actionable insights through data, aiming towards a better, more accurate and data-driven decision making.

Customers produce playability and web navigation data, which are collected almost near real time



Data are organized and stored in the database in structured or unstructured formats



Customer Data are analyzed and processed by the data scientist, ready for the modelling phase.



The whole lifecycle results to a positive impact on daily customer experience.

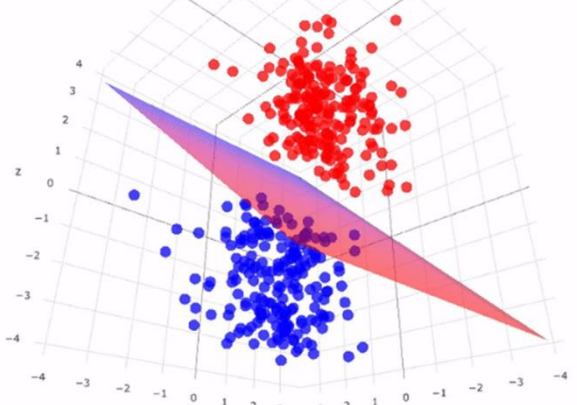


Chris: "OPAP offered me X€ to bet on pregame to my favorite team match, Why should I play elsewhere?"

ML Models are deployed into company servers and production systems.



AI Algorithms trained and validated by the data scientist to predict the desired outcome.



How Clustering is embedded to the company's pipeline? Data feed the algorithms, the algorithms feed production systems and systems impact daily customer experience.



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Classification algorithms predicting customers' future behavior

Clustering ML Modelling Real Life Examples: Categorizing Sportsbook bettors based on their preferences

Leagues they mostly prefer..



Premier League



GREECE



LaLiga

VS



VEIKKAUSLIIGA



KFA



LIGUE 1
mobilis

Live or pregame betting?



VS



Standard, average or outsider odds

VS



Segment #1

- ✓ *The highest betting value*
- ✓ *Vastly Skewed towards live*
- ✓ *Interested in Minor Leagues*
- ✓ *Interested in mid-low odds*

Segment #2

- ✓ *High betting value & frequency*
- ✓ *Vastly Skewed towards pregame*
- ✓ *Interested in Top Tier Leagues*
- ✓ *Interested in median odds*

Segment #3

- ✓ *Average Betting value*
- ✓ *Split wallet on Live/ Pregame*
- ✓ *Placing system bets*
- ✓ *Mainly betting on very high odds*

Clustering ML Modelling Real Life Examples: Recognizing low value hot prospects by analyzing the digital trace of customers* on the website.

High value hot prospects are “hidden” inside Pamestoixima.gr low value base



Low Value based on playability



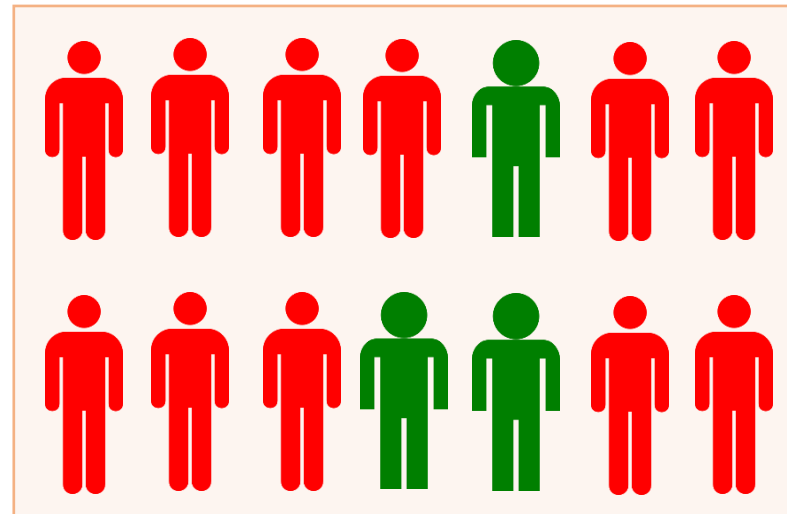
- ✓ Low frequency
- ✓ Low betting value
- ✓ Minimum time on website
- ✓ Low Session duration
- ✓ Very few logins

Hot prospect based on web behavior



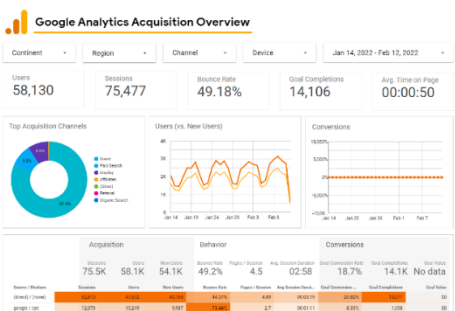
- ✓ Low frequency
- ✓ Low betting value
- ✓ High number of pages per visit
- ✓ High Session duration
- ✓ Logins similar to a high value

Low Value Sportsbook players



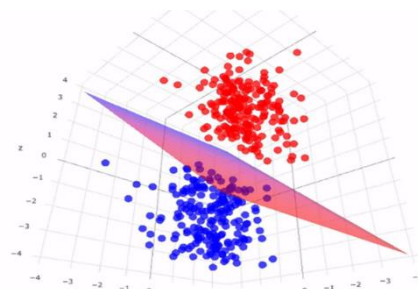
1

The digital trace of a low value player is analyzed through web analytics tools **



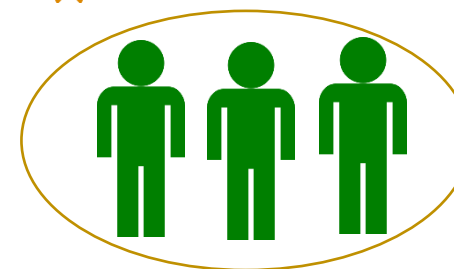
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A clustering algorithm reveals “outliers” from the low value base with digital trace typical to a high value player



3

Hot Prospects receive VIP treatment to turn them into loyal customers of pamestoixima.gr



*Provided cookie consent on the website
Example used for illustrative purposes only

Classification Models are trained to calculate the probability of a player's future action, for example, stop playing on Live casino tables, upsell their betting value towards pregame etc.

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How propensity algorithms provide added value to an Online gaming operator? Proactiveness is a key driver to the customer to feel that you feel him



Upsell Prediction

By identifying fast which players are more probable to try alternatives or new feature of the game, then communicating fast these new feature with relevance can be beneficial for business revenues and customer loyalty



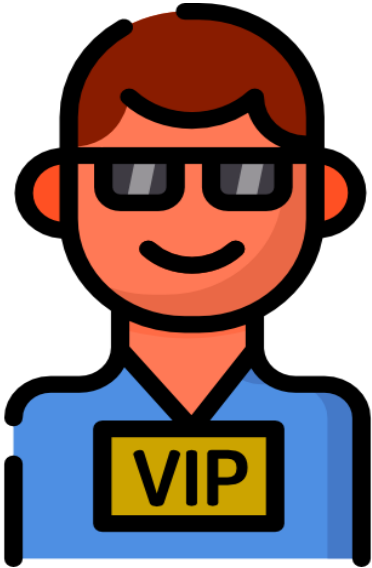
Cross-sell on Casino

Recognizing which customers would most probably being attracted to try playing casino games, provide the opportunity to create personalized content and CRM communication to crosssell towards casino



Churn Prediction

A fast recognition of customers who could stop playing Sportsbook soon gives the opportunity to deliver more appealing promos and customers journeys, to possibly get a second chance from them.



Early VIPs recognition


Using ML algorithms, we can identify a future high value customer from his very early stages upon registration on Sportsbook, offering the most appealing welcome journey across industry.

Classification ML Modelling Real Life Examples: Crossell Sports bettors towards Casino

2 Types of Sportsbook Players

1 Exclusive Sportsbook Bettors

- ✓ Play only Sportsbook
- ✓ Do not play Casino or play very often or play only free games.

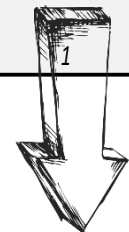


2 Hybrid Sportsbook Bettors

- ✓ Plays both Sportsbook and Casino
- ✓ Splits his wallet on both verticals

Step 1: Collecting data in customer level based on sportsbook and casino playability behavior

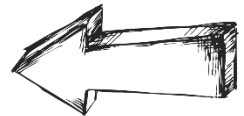
Customer id	Type	Avg bet value	Live share %	Pregame share %	Low Odds share %	High Odds share %	Casino frequency
AAAAA	Excl Sportsbbok	€ -	%	%	%	%	X
BBBBB	Excl Sportsbook	€ -	%	%	%	%	Z
CCCCC	Excl Sportsbook	€ -	%	%	%	%	Y
DDDDD	Hybrid	€ -	%	%	%	%	
.....	
.....	
.....	
AAXZR	Hybrid	€ -	0	1	0,85	0,15	0



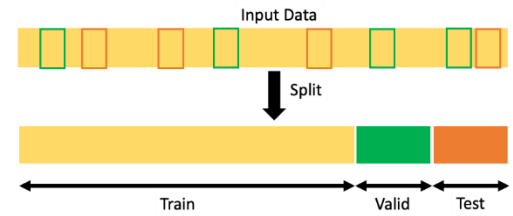
Step 3: Customers with the highest probability are targeted with personalized content to cross-sell casino games.

Step 2: Classification algorithms are trained to predict the probability a player have to become Hybrid in the near future.

Chris: "OPAP offered me X€ to try Live casino new branded tables. Why not? They look convenient and fun to play."



XGBoost



Customer id	Type	Prob. To become Hybrid
AAAAA	Excl Sportsbbok	60%
BBBBB	Excl Sportsbook	15%
CCCCC	Excl Sportsbook	94%
EEEE	Excl Sportsbook	25%
.....
.....
SADGD	Excl Sportsbook	84%

Recommendation Engines are developed to predict the product, offer type, amount, weekday, time and communication channel that best fits a player profile.

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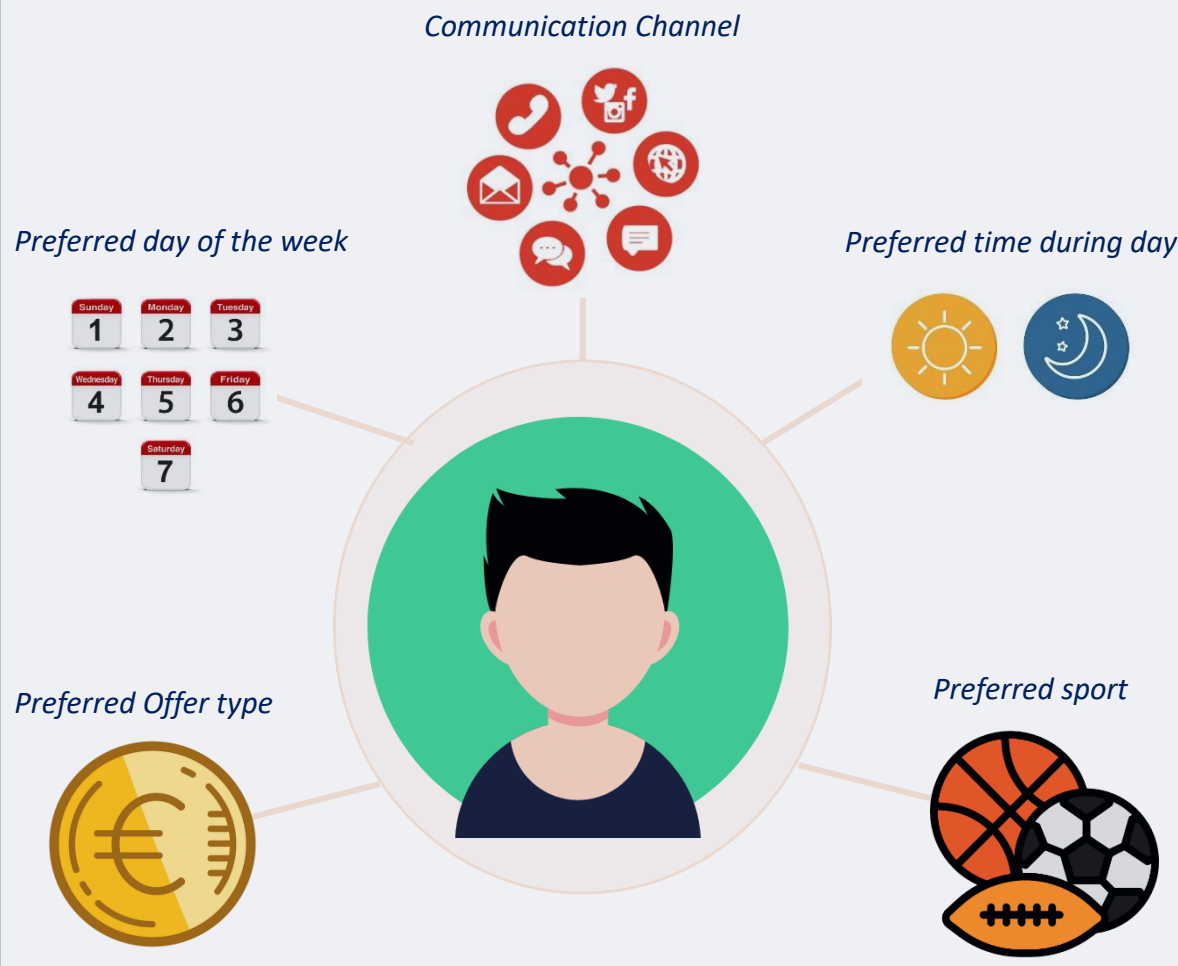
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Recommendation Engines Applications: Personalization is the key towards the best customer experience

Recommendation engines are trained in order to predict the content, offer type, even the time of the day that “best suits” to customer



A priori algorithms create tailored – made offers based on customer’s explicit characteristics, increasing the probability to react positive and feel good.

