Customer Life Cycle

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Predictive Customer Analytics — Part I

PREDICTIVE ANALYTICS

Business is built around customers. Every business needs customers to survive. They are the source of revenue. Needless to say, the success of a business is directly proportional to its ability to acquire customers, nurture them, make them happy, solve their issues, and consequently make more money from them. But for that to happen, the business needs to identify the right potential customers. They have to figure out the who, what, why, and how.

- Who are the potential customers demanding their products?
- What do they want?
- Why do they want this particular product?
- How are the customers making their buying decisions?
- How does a business go about doing this?

Typically all businesses have customer-facing people, like sales, marketing, and support who keep talking to their customers.

They become the face of the company, but it's impossible for a business to contact every potential and current customer individually from time to time to understand their asks.

customers much faster than before. The traditional barriers of geography and language are gone. A business in China can easily sell to a customer in the US, like Alibaba.

The competition is getting bigger and smarter. Customers today have more options for any product or service, and the barriers to switch to vendors is becoming smaller.

This brings businesses to a situation where they need to understand and plan for what their customers might do in the future.

For that, they need to predict customer behavior. Therein comes predictive customer analytics. To be ahead of the curve and act proactively, businesses need to know what their customers might do in the future.

- Will they buy your product?
- Will they switch?
- Are they happy with the product?
- Are they going to be dissatisfied?
- Will they buy more?

Businesses need answers to these questions in order to identify the right customer, the right channel to contact them, and the right way to offer to help them.

They need predictive analytics. Predictive customer analytics uses customer data to build models. These models help predict future behavior. It helps businesses to target prospects who will convert and identify additional products the customer might buy.

When customers have problems, predictive customer analytics will help businesses to identify the right resources to solve the problems. It will help identify customers who might switch and make them offers to redeem them.

And with predictive customer analytics, businesses can achieve this with lower cost and higher effectiveness than traditional means.

The opportunity for doing predictive customer analytics today is better than ever before. There are rich data sources that are widely available, such as web blogs, social media, chat, transactions, and voice transcripts. Also, today's big data technologies are capable of doing large-scale data processing, integration, and storage in cost-effective ways.

We have multiple ways to understand what the customers think and feel, and be able to mine the data to build effective models. We can then use these models for driving business towards the right customers and making them stay with your business.

The relationship between a customer and a business goes through a lifecycle. Businesses provide products and services that a customer wants, and a customer looks at a business to provide his wants and needs. All starts with a need. Imagine that. A customer needs a laptop, so he goes about looking for options based on the technical specs, deals, and customer service ratings.

Then the customer selects a store to buy the laptop. This is the purchasing process. Once the customer has bought a product, he or she may purchase additional items, like cables, chargers, storage, et cetera. The customer then continues to use the product for a length of time. He may face issues with repairs and upgrade parts. After the laptop's lifetime, the customer might want to buy

From a business perspective, the first stage in the cycle is acquiring customers. This cycle involves advertisements, targeted marketing deals, et cetera, to pull the customer to their store. Once the customer has bought the product the business might want to up-sell other items like cables, service contracts, et cetera. It costs them significantly less to sell to an existing customer than to a brand new customer. The business needs to insure that the customer is happy with the product through proper service and support.

When the life of the product comes to a close, the business wants to regain the customer by providing priority deals. Remember, it costs less to keep a customer than to acquire a new customer. So we see that the business cycle is similar for both the customer and the business. The customer will focus on the value of the product while the business is more concerned about revenue and retention.

Apply analytics to the customer life cycle

- Acquisition

Customer analytics can identify customers who are most likely to buy your products and services through attribute and behavioral analytics. It can identify the right channels like e-mail, phone or social media to contact these prospects. It can also be used to determine price points and discounts that will most likely attract prospects.

- Up-sell

When a customer buys a product they most likely want complimentary products. For instance, a laptop buyer would need cases, cables and warranty. Predictive customer analytics can help identify

Analytics can help predict failure patterns in products and guide the business to take proactive actions. It will also help choose the right channel for providing service to various types of customers. For example, some customers feel more comfortable with phones, while others like email.

It can hook up customers with the right contact center agent It can be used to identify customers who are most likely to be dissatisfied and reach out to them

- Retention

Predictive customer analytics can help in preventing customer attrition. It can identify customers who are most likely to leave and also predict their timing. This helps businesses to take actions at the right time. Predictive customer analytics can help identify the right programs for attention based on customer types.

So, predictive customer analytics can help businesses in engaging customers in a mutually productive way in all stages of a customer's life cycle.

Customer Data

Predictive customer analytics needs data that carries signals about the customers' intentions and behavior. It is important to identify the right data sources that provide these signals and use them for model building.

The customer-business relationship consists of four entities:

- the customer himself,
- the product or service the customer buys or uses,
- the channels of communication, like email, web chat, and finally,
- the customer-facing agents representing the company, like sales or support personnel.

There are two types of data that are required for customer analytics.

- the attributes of the entities,
- the events in which the entities participate

Entities can be customers, products, channels, or agents.

Attributes of the customer include demographics, income, age, gender, location, etc.

Attributes of the product include type, price, quality, etc. Attributes of the channel include type, frequency of use, and response times.

Attributes of the agents include handle times, resolution rates, etc.

These attributes includings what customer will buy and how much will pay.

The second type of data is interactions data. These are events related to what the customer does with the company. Events come with a timestamp. Events include interactions like browsing, emails, chats, phone calls.

They also include transactions like purchasing, filing a complaint, delivery of a product, payment, etc.

They also include social media events where the customer might tweet or post on facebook about the product or respond to a message, like liking or forwarding.

For example, Customer browsed the company's website for 15 minutes yesterday, looking at product or service. He or she was tweeting yesterday, asking for his friend's opinion on a suitable product or service. All this points to his intention to buy a specific product or service very soon.

The more complete the data is, the better predictions are going to be.

Customer Analytics Process

Predictive Customer Analytics is a continuous improvement model. It needs a well laid-out process within the business to work and deliver.

The process starts with identifying use cases where predictive customer analytics can help the company. Once the use cases are identified, architects need to identify the data sources that can be utilized for this purpose then data pipelines need to be built to acquire, process, integrate and store the data.

Then data scientists need to get to work to mine the data and build models. Models need to be tested for accuracy before they can be deployed.
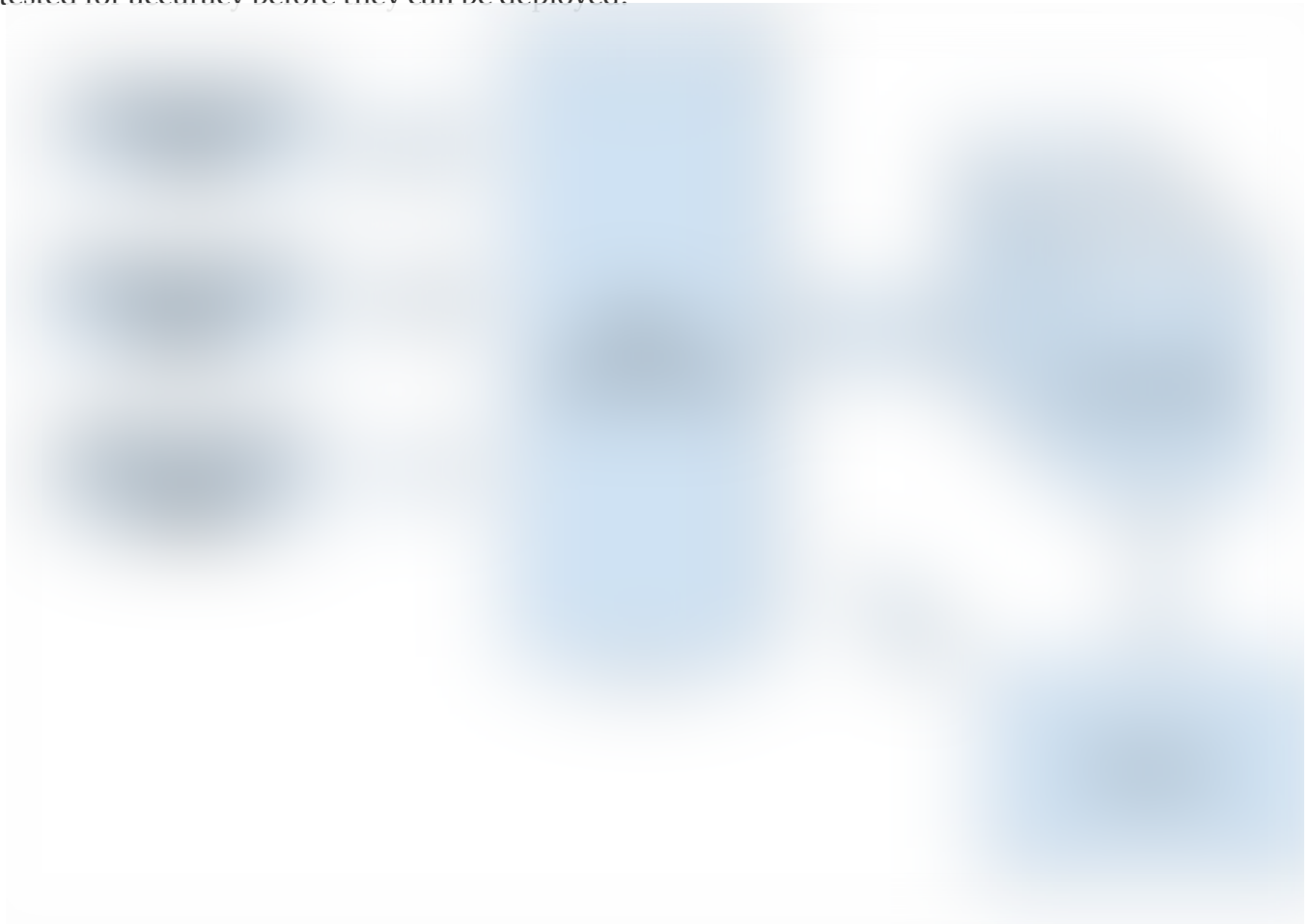
The performance of the models needs to be monitored and the models need to be fine-tuned. As time goes on, additional data elements can be added in for better prediction work. For any of this to work, there needs to be management buy-in. Once management is on board, we will be able to find resources to undertake the project.

If you found this post useful, stay tuned for **Part II** ,**Part III** , **Part IV** and **Part V**

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