The 360 Degree View of the Customer

Smart connected devices, big data, and advanced analytics provide companies with a set of platforms we term Behavioral Technology. These allow firms to better understand their customers at the behavioral level, their activities, and preferences. Behavioral Technologies allowing firms to create new products and product categories specifically targeted to an individual consumer within a personalized context.

In order to obtain as clear a view of the customer as possible, a 360 degree view, a complete understanding of the customers data 'corpus' – a data set which defines the entirety of a particular individual – and which is identified, collected and curated by behavioral technologies; is therefore highly desirable.

At the highest level there are three major data categories:

1. A customers personal **Private Data**. This is data an individual owns independent of any third party. This includes notes made on a mobile phone; data on a computer hard drive, tablet, or other device; rich media data such as photos; audio data, and personal machine data such as that stored on an individual's exercise machines or domestic appliances, none of which have been accessed by a third party without permission.
2. **Internal Data**: This is digital data held by a firm on an individual. It could for example include basic transactional data such as an invoice or customer's address. More complex forms of data include that gathered from the smart connected devices through which the firm is connected to the customer such as data from a thermostat or an automobile.
3. **Aggregated Data**: This is the global collection of all data held by all firms on an individual. It captures many aspects of the individual's data corpus but is fragmented into the pieces owned by individual companies, or constituents such as governmental entities. The data can take any form including for example machine; audio; visual; transactional, or tracking data.

However, there is also an overlap between what a person holds as private data and the data they are willing to share with other parties. These relationships are captured by the following framework:
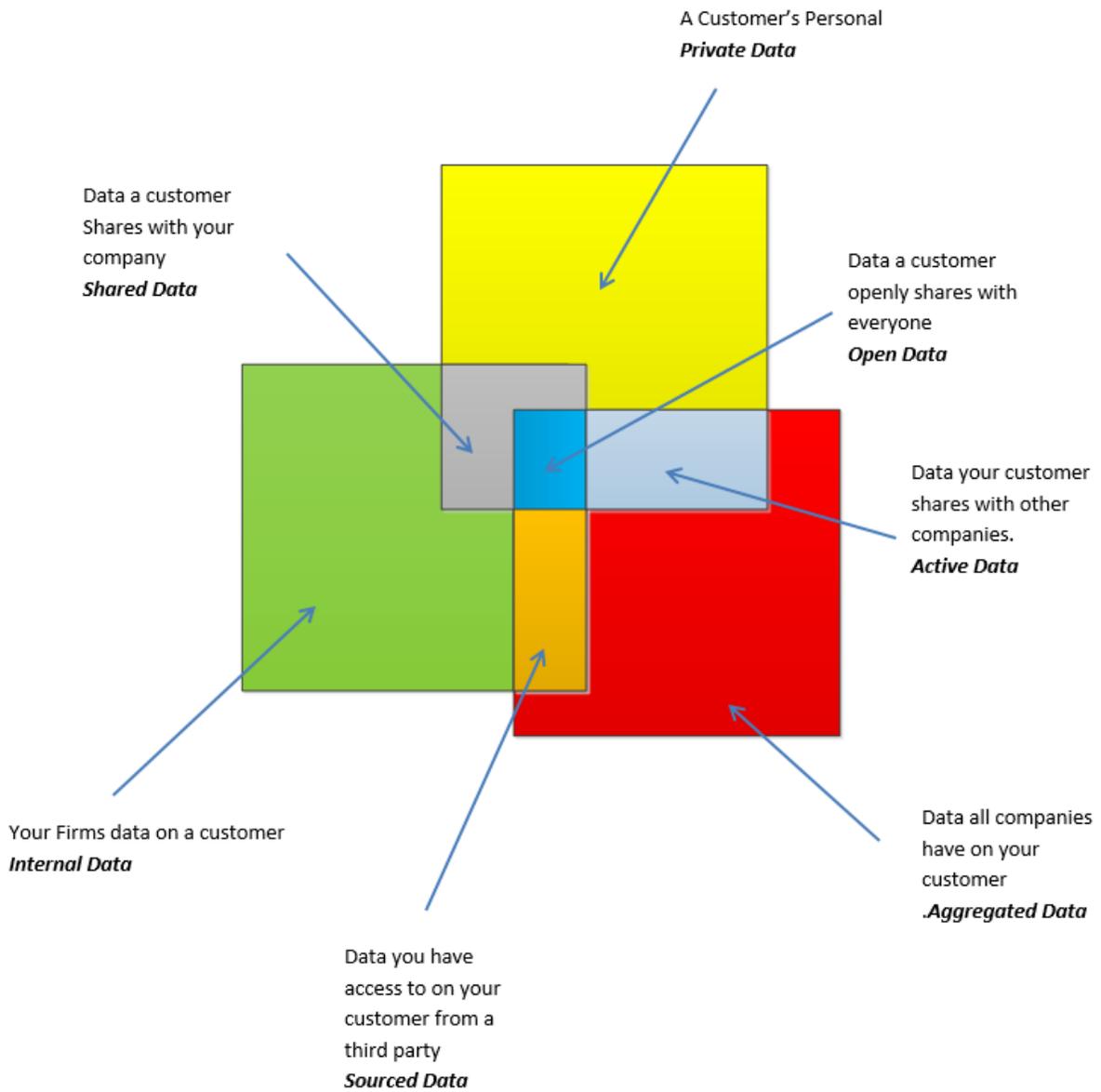
A Customer's Personal
Private Data

Data a customer
Shares with your
company
Shared Data

Data a customer
openly shares with
everyone
Open Data

Data your customer
shares with other
companies.
Active Data

Your Firms data on a customer
Internal Data

Data all companies
have on your
customer
.Aggregated Data

Data you have
access to on your
customer from a
third party
Sourced Data

Figure 1: Customer Data Windows

There are four categories of data access or sharing:

- The first of these is **Shared Data.** This is data the customers is willing to actively share with a specific firm beyond the transactional. For example, an individual may spend time responding to questions to improve a recommendation system for movie choices such as at Netflix, this go beyond the company's existing knowledge based upon past saliency but may provide personal information such as genre, actors, and era. Online stores use 'wish lists' and social media use 'Likes' to build similar data collections.
- Every consumer today lays a constant trail of data surrounding their every activity. This **Active Data** is owned by those companies and forms their internal data set. For example payment data to utilities, credit card payments and geo-location data provided via our smartphone.
- A special category of both shared and active data is **Open Data.** This is Data shared by consumers with an entity knowing that it will be shared with the general population and thus is available to all firms. Large data sets at the governmental level are available, for example patent ownership data; property tax and house sale information.
- The final category of data is **Sourced Data**. This is data the firm buys or acquires from the aggregated data set on its customers. For example, acquisition of customer credit scores from an agency.

Deepening the Insight – Building the relationship through data

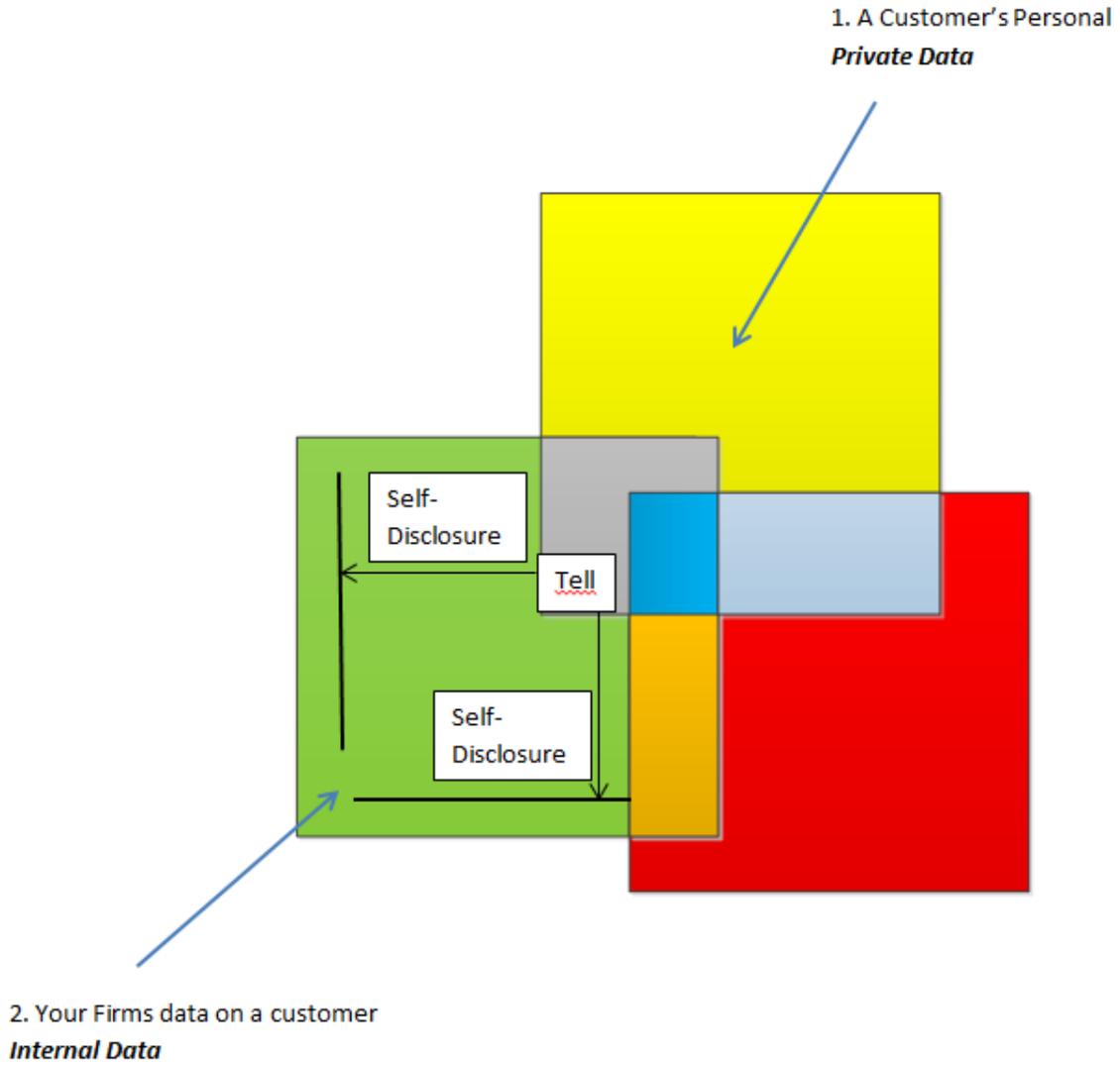The data relationship can be developed in three ways.

1. **Self-Disclosure**. The *'Tell'* approach is based upon techniques designed to encourage greater self-disclosure by the customer with the company. Great data driven companies such as Netflix and Apple have achieved a high degree of self-disclosure by their customers, based upon factors including data integrity, privacy, and governance gaining the trust with their customers. The application of mobile data streaming and connectivity through smart connected devices facilitates self-disclosure with low overhead costs for the consumer within a trusted governance framework. For example Amazon's 'dash' button device enables a consumer by a simple push on the button to establish a product specific reorder, such as washing power, the device connects to the consumers smartphone app via Wi-Fi for final authorization. This allows Amazon to move further up the purchasing value chain and gain more accurate data on the consumer's consumption patterns. Similarly, while Google's Nest smart thermostat allows consumers to remotely control their home temperature it also connects to the utility companies providing them with real time power usage information. In return for this self-disclosure Google can provide automated energy efficiency services and suggest aligned products.
2. **Solicit**. The *'Ask'* approach is based upon two vectors. One is too actively, yet selectively, solicits information from a customer, data that was up to that point private. This could be preference data or social data such as friendships or work colleagues, which are obtainable through gaining permission to link to them via social media or newsfeeds such as Twitter. Another powerful data driver is to ask for data that the customer did not know they had; for example using existing

data to clarify a consumer's movie genre preferences. This can be used by companies such as Netflix to promote adjacent categories as well as provide valued content in the core areas, thus helping amplify the relationship and deepen it at the same time. Similarly, smart connected devices can provide even more categories of environmental and behavioral data which previously the consumer may not have actively been aware of. For example, wearable fitness devices, automobile engine management systems that relay their status back to the manufacturer, or provide information to third parties that can in turn provide valuable feedback to the customer in terms of services such as routing and car diagnostics. The second vector is to solicit information on a consumer from third parties who hold pieces of the Aggregated Data on that individual. For example, soliciting information from credit companies, downloading social media data on an individual and acquiring geo-spacial tracking data enables companies to develop a higher definition composite picture of the customer.

3. **Shared Discovery**. The 'Explore and Link' approach is based upon helping discover what customers don't even know about themselves, or at least are not actively aware, and hence could not share it even if they wanted to. Shared discovery explores the vast data sets and data streams held by third parties for data-interconnectivity, data that can be linked together to provide an insight into an individual customer, or consumer group. By tying together disparate data sets predictive analytics can establish future behaviors which would be otherwise impossible. For example, a supermarket may be able to piece together that they have a customer segment that is actually following a paleo diet, even if that is not known to the customer. They may further deduce through acquisition of data sets that this customer is in a category of shoppers who following a certain 'lifestyle' such as active-sporty-paleo, a product category to whom they had not overtly marketed to before nor interacted with. This may in turn encourage the customer to share more of their own personal data, creating a virtuous cycle. Ancestor.com, the online genealogical search company use this style of data bonding to good effect, bonding with their customers as more data is provided as 'tip' and subsequently built into their family tree. While Cortera, a credit risk and scoring firm monitors an unlimited number of B2B customers, prospects and suppliers to enable their users to be aware of any changes that could impact their business relationships. The Cortera Pulse system monitors in real time credit score changes, relevant news, bankruptcy filings, tax liens, civil judgments, growth clues, personnel changes and other metrics from more than 20 million public and private companies.
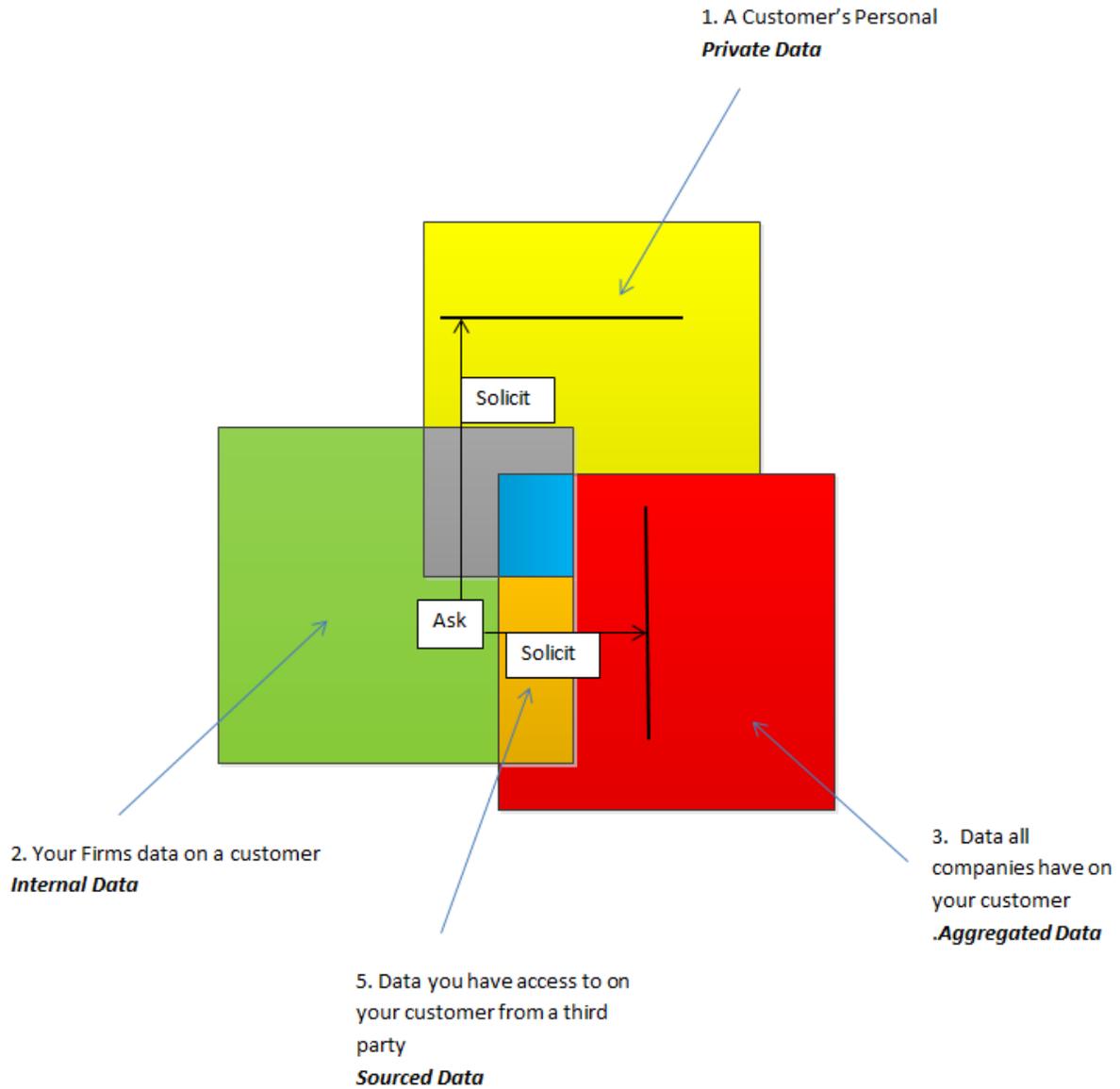
Grow your relationship: Tell

This grows the grey area, data shared by the customer openly with your firm.

1. A Customer's Personal *Private Data*

Self-Disclosure

Tell

Self-Disclosure

2. Your Firms data on a customer *Internal Data*

Grow your relationship: Ask

This grows the grey area, whereby the customer shares freely with your firm; as well as the orange area, data that is gained on the customer from third parties through acquisition.

1. A Customer's Personal
Private Data

Solicit

Solicit

Ask

2. Your Firms data on a customer
Internal Data

3. Data all companies have on your customer
.Aggregated Data

5. Data you have access to on your customer from a third party
Sourced Data

Grow your relationship: Shared Discovery

This expands the orange area; data that has been sourced from a third party and has the potential to encourage customers to share more valuable personal data, the grey data.

1. A Customer's Personal *Private Data*

Shared Discovery

Explore & Link

Shared Discovery

2. Your Firms data on a customer *Internal Data*

3. Data all companies have on your customer *.Aggregated Data*