



The Modern Call Model

As a nation of smartphone users communicate universally with text, the Modern Call Model brings much-needed texting innovation to customer-care centers

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Introduction

Smartphone Nation Is Here

Welcome to the smartphone nation, where almost 90% of Americans own smartphones, 96% of them use text, and 76% wish they could use text as a more efficient method to communicate with business.


Customer-care centers need a new model, let's call it the modern call model, to meet universal customer demand for texting options. The modern call model enables business phone lines to work like a smartphone. Agents can make use of all the smartphone features customers already embrace, and move between text, voice, and link sharing to resolve caller issues more effectively, and make conversations more comfortable.

The text-first modern call model is an approach that has the potential to eliminate hold times, realize one-call resolution, remove friction from the care-center experience, and reduce agent stress, even as customer satisfaction soars. The modern call model is long overdue, but it is being ushered in with truly transformative effect. Let's explore how and why the modern call model is ascending as a business improvement strategy with far-reaching benefits.

The Kitchen Phone

Why is it so easy to communicate with our friends, but so painful to communicate with companies?

As a school child in the seventies, phone calls with friends were constrained by the availability of a single phone hanging on the kitchen wall in my house. I had to wait until it was free, then call. This was before there were answering machines in every house, so I hoped my friend was home when I called. Typically, an adult answered and hollered for my friend, or went looking to bring him to the phone. If he was home,



I could ask my friend a homework question. If he was out, I came up short. Phone calls required effort and dedicated commitment from all parties involved.

Today, smartphones make communications between young and old easy and effortless. Gone are the days of calling and trying to convince a parent to pass the phone to your girlfriend. In are the days of Snap Chatting a specially filtered picture of your face. Gone are the days of calling a phone number, hoping somebody is there to answer. In are the days of #hashtags. Gone are the days when parents threaten to take away the keys for bad behavior. In are the days of putting smartphones in 'time-out' jail.


Replacing the kitchen phone are smartphones, Snapchat, Facebook and SMS. Phones are almost extensions of modern teenagers, who never take their thumbs and eyes off their rectangle. They communicate at the speed of light with no friction or pain.

Contrast this with today's business communications. Compared to communicating with friends, family, and colleagues, communicating with business is uncomfortable, almost painful, always dreaded, and typically avoided at all costs. It is well known that today's teenagers seldom make phone calls or answer calls from unrecognized phone numbers. It is not surprising then that the prospect of interacting with a business IVR is totally unpalatable and unacceptable to them.

The roots of our unsatisfactory business communications can be traced right back to the avocado green phone on the kitchen wall, just as the roots of our children's satisfying communications can be traced to the rectangle in their hands—the smartphone.

Saying Goodbye to the Kitchen Phone

Daily life is cluttered with ghosts of technologies past. Yards, inches, and feet are ancient technologies, based upon the Egyptian cubit, standardized as the length




between the elbow and the tip of the middle finger more than 3,000 years ago. Real time communications are no exception to this rule. From the start, from the telegraph itself, we have struggled to let go of the past.

Prior to the advent of the telephone, telegraph wires connected cities and towns with twisted pair copper wires. The telephone was an “over the top” device designed to work with this existing telegraph system wires and communications. The actual title of the original telephone patent was “Improvement in Telegraphy”. Skype is hardly the first over-the-top telephony service. Instead of upgrading the twisted pair telegraph infrastructure, the industry kept the legacy and layered on new functionality.

As the voice capacity grew exponentially, the complications of managing and operating networks of twisted pair wire became cost prohibitive. Throughout the 20th century, Bell Labs continuously improved the way in which voice was transmitted and routed. Even though twisted pair remained in the last mile, the core network moved to digital standards like T1 and ISDN. Struggling to let go of the past, telecom standardized on the DSO as the lowest common denominator of voice communication: a single, pure voice channel. This incremental improvement became the backbone of today’s carrier networks. **Even today, as voice has moved to packet networks, this single voice channel is the brick from which our business communications are built.**

All traditional PBX functionality is based on these bricks. Auto attendants, extensions, transfers and voicemail are built on this idea of a single, pure voice channel. For more than thirty years, this functionality defined business communications. Business people and engineers of the time should be forgiven for thinking business communications was a solved problem... for the landline, it was. It turned out that the landline itself was the problem.

One hundred and forty years ago, The Bell Telephone Company was founded in Boston to provide landline voice service to existing telegraph customers. One hundred and forty years later, it’s successor company, AT&T, has announced their intent to end




landline service. AT&T Illinois President Paul La Schiazza told the Chicago Tribune that landlines are "technology that customers have said they don't want anymore, wasting precious hundreds of millions of dollars that could be going to new technologies that would do a better job of serving customers."

In the end, the utility of mobility trumped the reliability of dial tone.

The Rise of the Smartphone

As the first mobile phone was brought to market, the existing telephony establishment pointed out its fatal flaw: reliability. The standard for telephony reliability was measured in "nines": the acceptable service availability for landlines was for 99.999%, or colloquially "five nines". To this day, it is debatable how many nines mobile phones have any right to claim. For the establishment, the proper measure of quality was service availability, and it was obvious that the mobile phone was substantially less available, and fundamentally so. Apart from marketing spin and investor hype, mobile phones simply have issues of physics that would forever make them less reliable than landline phones. As we clearly understand today, the fundamental value of a mobile phone is that it's mobile, so users can be mobile as well. To the enduring surprise of the telecom establishment, reliability was not the most important feature. The ability to hear a "pin drop" seemed less important in this new environment.

Starting in the mid-nineties, car phones gave way to flip phones, which became a staple of every businessman's toolkit. Freed from the constraints of a wall, desk or car, business became agile and more customer focused. As flip phones flourished, so did the web. Just as the mobile phone destroyed the constraint of the physical location of an employee, the web destroyed the idea of physical distance between companies themselves. Any company on the planet was now able to open a storefront on every computer in the world, efficiently and cost effectively. This one-two punch of mobility and the web simply transformed the world of business, enabled globalization, and crippled the ability of large companies and interests to defend their incumbency.




As consumer electronics progressed, and the population adopted the web, the time was ripe for a mobile computing device more substantial than a PDA (personal digital assistant)— the smartphone. The smartphone is a marriage of convenience. Since the flip phone and PDA already occupied space in the consumer’s pocket, there was a natural pressure to combine the two devices. Interestingly, even though the pocket computer and the phone share the same hardware, the actual functional connection between the two is meager. The clear majority of mobile apps have nothing to do with the phone. Without clear benefits to the users themselves, deep integrations between communications and the smarts of a handset are rare, elusive and hard to identify. The single bright spot in the combination of phone and mobile computing functionality is the rapid adoption of additional phone functionalities, like SMS and picture sharing, now driven by the ease of use provided by the smartphone user interface (UI).

Through this entire period, however, businesses have strived to make communications with their customers more efficient and pleasing. The primary mechanism has not been the phone, but instead the mobile application. Mobile applications seek to provide the same sort of value websites provided, but in a mobile form factor. As the web became ubiquitous, APIs and connections to the backend data of the business benefitted both consumers and businesses in terms of speed, efficiency and scale.

But, mobile applications for consumers have a mixed record of success. According to a recent comScore report, most people do not download an app in any one month, and only a handful of apps can claim any widespread adoption and use. The time and effort to install and use a mobile application are rarely worth the benefits to the user. Most often, mobile users install an application to solve one-off problems that they are unlikely to encounter often. The mobile browser alternative also underperforms, since the mobile device is a poor input device, reducing the practical ways to discover and use mobile web solutions to organic search.

Today, we are a nation of smartphone users, but we are serviced by businesses built



out of landline bricks, with an ill-conceived objective of convincing everyone to join virtual private networks for each business.


The State of the Art

Communications fall into two technical camps: the mobile user and the landline centered business¹. As mobile users enjoy efficient and effective communications, a bright light is shone on the bruises experienced within business communications. If personal communications are pleasing, business communications are punishing, albeit they promise higher quality.

Consider the typical on-hold experience. Nowhere else in life are people told to wait patiently and silently for someone else, for an indeterminate amount of time, while listening to bad music, periodically interrupted by a human voice assuring the caller that despite all the evidence, this call is very important to them. Outside of this experience, the mobile user would never call someone when they weren't available. Why would they? A simple text message or "ping" to check availability first makes for a polite and easy connection. Since business communications are based on the landline, no such idea as "ping" exists. Constrained by bricks, made by a single voice channel, today's call-back systems do back flips to heal the bruises that voice creates in the first place.

A similar problem exists with auto-attendants, otherwise known as phone menus or IVR. Both business and mobile users agree that knowing the context prior to a conversation makes sense. For the business, it reduces operational costs, because receptionists are not needed, and calls can be routed to the most appropriate person. Customers don't want their time wasted talking to the wrong agent. Since landline phones have a limited input set, the only compatible approach was to use the number pad to collect customer input in the early days, then to use voice recognition more

¹ My apologies to the 5% of households who only have a landline phone, and to the additional 5% of households who have no phone.



recently. For a generation of digital natives, this must seem as old and unsophisticated as the Beverly Hillbillies.


Mobile users have an entirely different approach to context and intrusion: they text it and avoid it, respectively. The introduction to a call is a text message such as “Hey, can we talk about tomorrow’s game?” Mobile users can share texts, pictures and links before a call is made, if it’s ever made at all.

The Modern Call Model

Conversations that start with voice are often crippled from the start. The alternative, that conversations start with messaging, is understood and adopted by customers, in large measure and converging towards universality. It is with no small amount of embarrassment that communications engineers should admit the truth: We have spent 140 years of time and treasure building out communications systems optimized for a particular worldview, but not for humanity’s preference. People would rather not talk, they would rather text.

Unlike our predecessors, we have an unambiguous model for how people like to communicate. We have become a smartphone nation, where almost 90% of Americans own smartphones, 96% of them use text, and 76% wish they could use text as a more efficient method to communicate with business. As consumer adoption of texting as a preferred communication method grows almost complete, especially among millennials, the insistent drumbeat demanding that care-center texting be more available grows louder.

A modern call model is clearly needed, where agents move effortlessly between text, voice, and link sharing to resolve caller issues more effectively and make conversations more comfortable. In the modern call model, the ability for any caller to initiate a care center conversation with a simple text, and proceed from there, ushers in far-reaching productivity gains and improvements in customer satisfaction.



The text-first modern call model is an approach that has the potential to eliminate hold times, realize one-call resolution, remove friction from the care-center experience, and reduce agent stress, even as customer satisfaction soars. The modern call model is long overdue, but it is being ushered in with truly transformative effect, not the least of which is greater productivity.


In the presence of systems that support the modern call model, care-center phone lines can work like smartphones. Customers are literally able to communicate discreetly with companies in the exact same manner as they communicate with friends. Once the requirement is lifted to start sessions with voice, agents can move effortlessly between texting, calling, link and media sharing, depending on the needs of the customer.

“Dude, Where’s My Stuff?”

Consider the simple message sent between two friends: **“Dude, where’s my stuff?”** **“It’s on the kitchen table”** might be a reasonable one-text response. This simple, direct

request assumes an identity, a relationship and a context. You’ve sent it from your messages app, your friend knows who you are. She knows the stuff you’re talking about. As conversations go, this is as efficient as it gets.

In a business setting, imagine the exact same message, now sent to an online retailer. In this case, **“Dude, where’s my stuff” might have a response of “We shipped it yesterday, and here’s a link.”** The issues of identity, relationship and context are solved directly. Our digital identity, now represented globally by our mobile number, makes the identification of the customer practical and immediate. Thus, the fetching of the context (you are looking for the stuff we shipped yesterday) is quick and efficient. Since the conversation is digital, existing information systems can support the appropriate levels of customer service. By commencing with messaging, both the



customer and business can deliver an excellent experience, without installations or on-hold music.

Notice the typical parts of care center experiences that are missing. We didn't expose our customer to sixty seconds of a voice menu. No on-hold music. There is no request for a name; by definition, your friends know who you are. There's no exposure of personal information, such as the last four of your social security number. Also the whole conversation took place discreetly without the risk of eavesdroppers.

Mass Personalization

By starting conversations with messaging, we can mass personalize business communications. In any large enough population, there is more than one language spoken. In the relatively small state of Connecticut, its citizens speak over forty languages. Starting conversations with messaging allows software to detect and translate languages, providing an excellent experience and equal access to all your customers, whoever they are. Products can now be shipped worldwide and supported cost-effectively. Government services like FEMA and public health initiatives will truly be available to serve all, including those at risk and the unbanked. Sophisticated systems can leverage this multi-language environment and information, even going so far as to involve just-in-time third-party interpreters when calls escalate to voice.

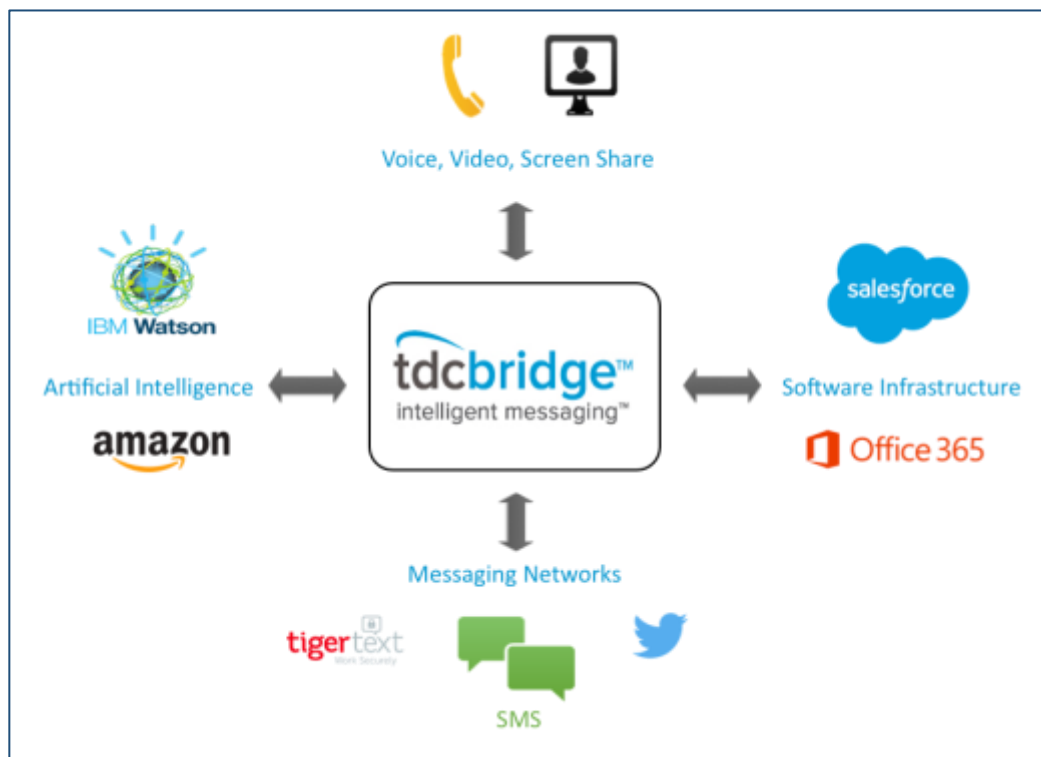
Access to Critical Data

The common language of computers and people is text. Conversations that start with text explode from the care center and into the business. Unlike voice, which is difficult to store, index and search, text can be leveraged directly by information systems. As an example, imagine a voice-centric, large business with thousands of customer service agents. It is impractical to store and index all of these conversations (over 25 billion conversations per year in North America alone) in real time; consider all of the customer intelligence lost over the past decades because of it. The modern call model surfaces all of this customer data, in real time. Instead of delays in analysis and reporting, the CEO can simply read what his customers are saying and requesting,


filtered and analyzed at will. Any company in a PR disaster craves the identification of the real sources of the problems; their ability to recognize them in real time could mean the difference between a great quarter and a bankruptcy. Any country or region facing a natural disaster can similarly tap into the smartphone fabric to weave a web of text, video and photo connectivity with constituents.

This tight integration with information systems is more than an analytical opportunity – it can change the center’s operations. By having real-time access to conversations, in an efficient form like text, machine learning systems can learn and suggest better responses for the agent to give. Over time, agents get smarter, and the business gets smarter too. The modern call model makes the introduction of bots and other conversational technologies practical and immediately useful.

The New Communications Context



Legacy systems, whose call model was solidified in the eighties, were designed in the context of kitchen phones and T1 trunks. The engineers of the day were without standardized computer networks, mobile devices, and the cloud. As a thought



experiment, if you were to imagine a world without phone systems, and had to design them for the first time, it is likely that some measure of data fluency would be supported. The absence of standardized computer networks in the eighties precluded this design decision, even if it were practical to convert voice to text.

Today's context is markedly different. Businesses commonly connect to data sources both inside and outside the firewall. As a source of real-time customer insight and information, the contact center is hard to beat. The modern call model, when attached to cloud data sources, radically increases the real-time visibility into the operations of a business.

Unifying Messaging Networks

The equivalent of yesterday's voice trunks are today's social messaging networks. Instead of unifying the types of communications, such as voice, video and collaboration, today's design might unify the messaging networks that the businesses customers use. The PSTN is a unified network. Messaging, however, is disparate and volatile. Customers pick their messenger before they pick their businesses. To connect, the business has to go where their customers are: snapchat for the kids, Facebook for the mothers, and SMS for society at large.

Perhaps the biggest change in contexts are the assumptions about who would be involved in the conversation. In the recent past, any communications on behalf of the company would be provided by a human being. In today's reality, a mix of people and software (chat bots and assistants) respond on behalf of the company. The ability for communications systems to have open and extensible connections to software is the heart of efficiency in the modern care center. The arrival of the digital workforce must have seemed like a far-away event to engineers thirty years ago, were it considered at all.



Past Attempts

Why can't I just add messaging to my legacy equipment?


The essence of the modern call model is that messaging precedes other forms of communications, if they are invoked at all. Messaging is responsible for establishing a session, coordinating authentication, and providing reasonable escalations into voice and richer data experiences. The modern call model is the “ping” you send to your

friends - it's the “call” they might send back. The modern call model is opinionated and rejects the notion that all forms of communications are equal. It suggests socially acceptable ways of communication. Instead of prescribing what people ought to do, it describes [what they actually do](#). The modern call model explicitly rejects unified communications, as people have clear preferences, and those preferences matter. The modern call model unabashedly waves a “text first” flag.

The Boundaries of Conversation

Apart from holding an opinion about the value of various communications modes, does it actually matter in practice? Why does the distinction between old and modern call models matter, if a system can provide both voice and messaging? It matters because when voice is either absent, or one part of a bigger whole, it cannot be used to bookend conversations. Phones ring, yet SMS doesn't. The legacy call model relies on voice to mark the boundaries of conversations. All conversations have a start and stop. Businesses depend on session boundaries for assignment and distribution, billing, and post call surveys. None of these activities are possible without identifying the boundaries of a conversation. Voice networks make this easy: sessions are implicit, started and ended by the network, and controlled by the participants of the call.

To use conversational messaging in a business setting requires determining the start and stop of each conversation. Messaging networks like SMS do not provide this,



unlike voice. It is not obvious from your cell phone's messaging app where conversations are stopped and restarted. To support the modern call model in a business setting, as opposed to a personal one, session boundaries must be established and managed. Failing to do so means that business conversations must continue to be initiated with voice. In other words, although the unified communications systems support messaging, their session backbone is voice, which is supplied by the network. To support the modern call model of messaging first, communications systems must use messaging to produce their own session backbone, and not rely on the network to provide it to them. It is not enough to add messaging to a system and call it a day. In other words, systems that support the modern call model must enable messaging to “ring” and “hang up”.

Examples and Vignettes

Friendly conversations are concise. Recalling our previous example, imagine personally receiving this SMS on your cell: “Dude, where’s my stuff?” When received from your roommate or brother, the context of the question is assumed – unless there’s a disconnect, you don’t respond “Dude, what stuff?” In friendly conversations, the context of the conversation is assumed. Additionally, you don’t have to introduce yourself to your friend; how awkward would the conversation be to receive an alternative message “Dude, this is your brother Thomas. The youngest one. Where’s my stuff?” The identity of the participants is established before the communication itself.

In the old call model, this type of conversation is simply impossible. First, sending a message itself is a basic challenge, requiring one to make a phone call. This voice first requirement eliminates the possibility of a quick, yet informed, response. Forced to respond in real time, the agent has no time to understand the context, seek an answer and communicate it. Instead, the agent and customer are forced to pay attention to the voice call as the problem is identified and the solution is set.

Additionally, since voice is carrying the conversation in the voice-first model, automated responses are impractical.

Modern call model Vignette: “Thomas – T H O M A S”?

Confused by a bill, a cable TV subscriber texts his provider. “Hey, I’m confused by my bill. I didn’t sign up for NHL Center Ice.” A few minutes later, the response arrives: “Hey Thomas, sorry for that confusion. That’s part of your new Sports Authority package.” With no recollection of signing up for that package either, another message escalates the conversation: “I didn’t sign up for that either, call?” Soon, the subscriber’s phone rings, and the agent and customer begin to figure it out together. At the beginning of the conversation, the agent introduces herself, but not Thomas. He’s authenticated the minute he answers the phone. Eventually, the mistake is realized and fixed.



Friends introduce themselves at the beginning of a relationship, not at every meeting. On subsequent meetings, the face or voice of a friend is sufficient for identification. The convenience of messaging must be paired with uniqueness to identify and authorize customers. Here, the escalation from messaging to voice has an added benefit: the customer voice is unique and authenticates the caller. When the customer relationship is established, a conversation with an agent “voice prints” the customer. From then on, when that customer needs to be authenticated, any phone call will do.

In the old call model, authentication is painful and expensive. Forced into a kind of interrogation, customers are asked to provide personal details like mother’s maiden name and the last four of their social security number. It’s difficult to imagine another

procedure designed to emphasize how much of a friend your business ISN'T. In a final bit of social embarrassment, you are forced to speak all that personal information out-loud. This is hardly a way to treat a friend.

Modern Call Model Vignette: On Hold

It's the holiday season and Kelly has begun shopping for her friends and family. When Kelly receives the sweater she ordered for her dad, it's too small and the wrong color. Kelly goes online to see how she can quickly contact customer service. She sees a chat option, but needs to take her daughter to basketball practice. Calling is the only workable option. The phone tree announces that that due to high call volume, her wait time is over 30 minutes, but she can text an agent instead at 800-867-5309. Kelly hangs up and decides to text. She immediately reaches a live agent and explains her order mix-up. She takes a picture of the order form and the sweater. She is still texting with the agent to ensure proper shipping while at her daughter's practice. Kelly is happy she can stay on the move and on



schedule, while texting with the agent to fix her order in no time. Kelly was delighted to speak to customer service like she talks to her friends: through texting

Modern Call Model Vignette: Payments

John Dough was a big sports fan who liked to attend many live events. He often brought along clients, his significant other, or his young children. He worked hard and

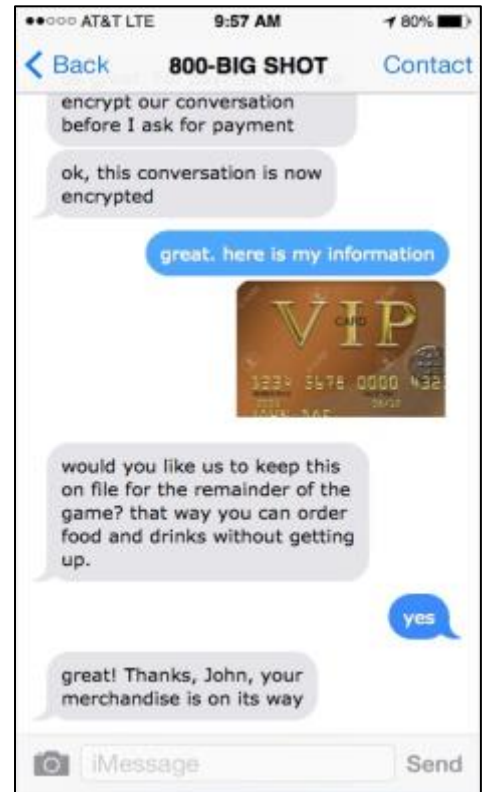
had the means to make people around him feel special, using valet parking, limousines, and other perks. At sporting events, the inconvenience of having to stand in lines to order food, refreshments, and merchandise always frustrated him. He wished for a better experience and was willing to pay for it.

At a recent event with clients, he noticed that the home team had adopted TDC Bridge, and was advertising on the big screen to TEXT: (800) BIG SHOT or (800) 244-7468 to order food, beverages or merchandise delivered to your seat. Discreetly, without making a display in front of his clients, or making them stand in line at busy concessions stands, John sent a text ordering food and beverages to the posted 800 number. He paid and received a confirmation within minutes. To his clients' amazement, the food soon arrived without anyone having to leave their seats.

John repeated this operation several times throughout the event, realizing that it was also an effective way to order merchandise for his clients without embarrassing them with a trip to the gift shop.

The reason this process worked so effectively was a link in the reply to John's text message, which opened a discreet and secure mobile payment window. All credit card details were encrypted and wiped from the device protecting John's private credit card information.

John was really pleased that his clients had a great time and he was able to treat them 'special' without the friction of standing in line. He was already thinking of his next guests to impress.

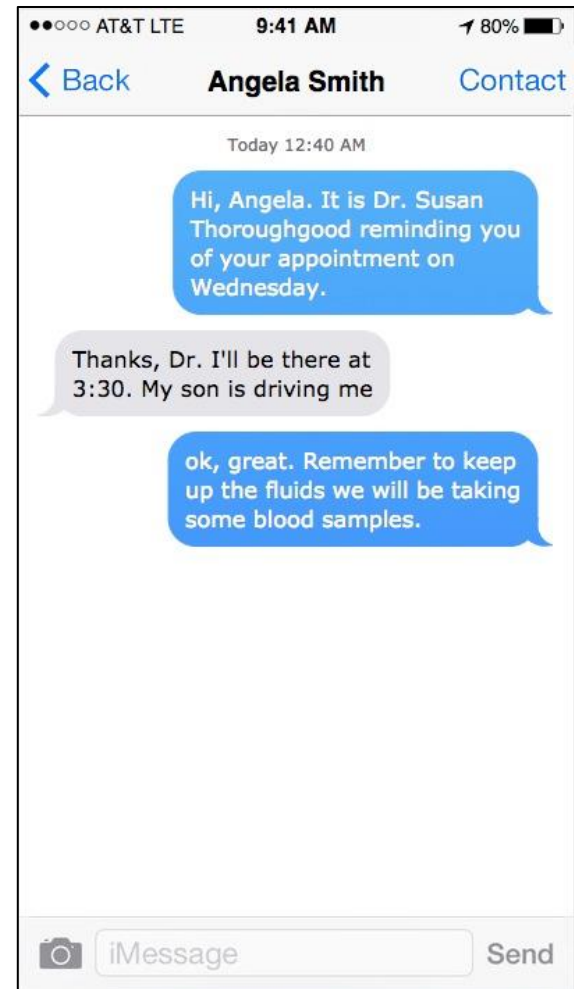


Modern Call Model Vignette: Encryption

Dr. Susan Thoroughgood had worked hard to establish her reputation as a leading oncologist in North America. Many fellow practitioners sought her out for professional advice, and she was always booked with a full slate of new and existing patients. In fact, she had recently added a couple new physicians to her practice. She knew that it was important that these doctors learn best practices around scheduling and communication with patients, in order to balance the administrative burden of billing with the practice of healthcare. In her personal life she was using her smartphone features like texting, pictures and mobile browsing to keep up with her friends and family and longed for similar simple tools for her practice.

The modern call model allowed her to communicate effectively with patients and colleagues, using her existing smartphone, yet protecting her personal phone number from being exposed, as well as the confidentiality of patient information. By using the mobile browser feature on all smartphones, a simple link in a text message offers the opportunity to escalate any conversation requiring privacy, discretion, confidentiality or security into an encrypted conversation, which can be remotely removed from the smartphone device after consumption. This solved several big challenges for her practice including:

- scheduling and confirming appointments to minimize no-shows
- communicating and protecting confidential information
- efficiently keeping in touch with patients between appointments – particularly after treatment or hospitalization
- documenting patient interaction/compliance
- protecting her growing practice from the threat of a HIPAA violation



Dr. Thoroughgood was pleased to introduce her new physicians to the latest communications tools, which ensured that her practice would continue to provide excellent care in an efficient and effective manner during and between treatments.

It is easy to see how this encryption capability might apply to other situations as well, including, but not limited to, bullying, domestic violence, sensitive communications, financial services and more.

Modern Call Model Vignette: Pinning

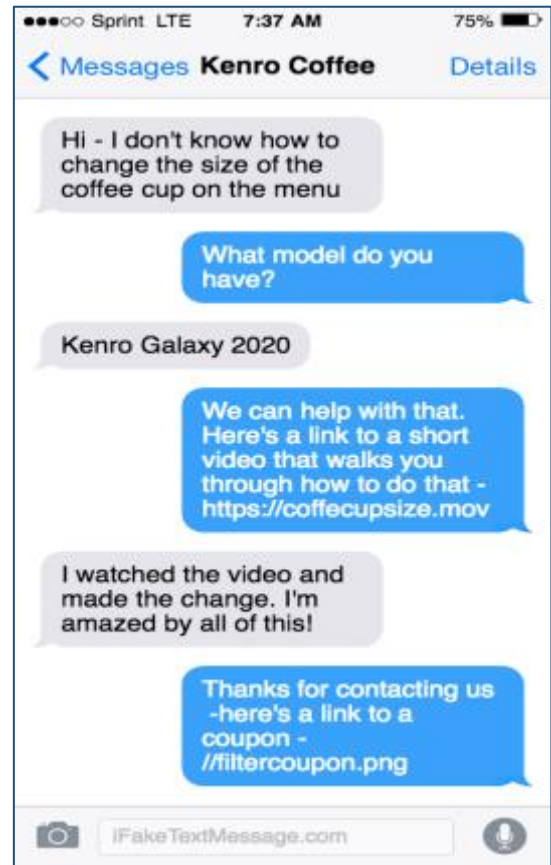
In one busy law firm dependent on document printing, any printer problem creates crisis and stress. But fortunately, this office can always count on Frank to solve any printer emergency. That's because Frank can always count on the manufacturer's customer service department to guide him through every fix. When power went out in the building and the printer refused to come back online, Frank texted customer care and within a couple of minutes of texting back and forth with an agent, he was able to troubleshoot the problem and get the printer up and running.

Speed, efficiency, and useful links to diagrams and instructions—TDC Bridge and the modern call model harness the power of texting in finding the best way to solve customer problems for faster, easier, more convenient and effective resolutions.



Modern Call Model Vignette: Link and Document Delivery

Ralph is 68 and struggles to master his smartphone, but when his daughter taught him to text, he caught on fast. One morning Ralph found himself unable to select a smaller cup of coffee than his usual “big gulp” on his coffee maker. A label on the underside of the lid said Frank could text a question and someone would help. Ralph texted the agent about the issue, and soon the agent texted him back with a link to a VIDEO that talked Ralph through understanding the basics of his coffee maker. Ralph hadn't viewed a video on his phone before, but he was an instant fan and quickly learned how to adjust cup sizes on his coffee maker. When he texted his thanks, the agent responded with a 10% off coupon for new filters. TDC Bridge and the modern call model ensure Agents can assess and deliver the exact help customers need when they need it, without wasting time and without the third degree.



Modern call model Vignette: Necesito ayuda!

A young woman moved in with her boyfriend across town. The first few weeks were good, but after a night of drinking, they had a fight that turned violent. The frightened woman found herself locked in her bathroom, smartphone in hand. While her boyfriend screamed outside, she sent a message to the domestic abuse hotline: "necesito ayuda, mi novio está borracho y violento." Late at night in Connecticut, they had enough troubles staffing the care center with social workers, never mind Spanish speaking ones.

The agent, however, didn't need to speak Spanish; her communications system did it for her. The agent could send messages in English that were translated to Spanish automatically. The drunk boyfriend didn't hear the social worker as she counseled the victim, while she called the police.

Mass personalization requires more than knowing a customer's name, or knowing their past history, it requires speaking their language... literally. Simple manners and respect suggest that communications with your customers should be in their not your agents' language. In the United States, chances are that if you pick four random people from the population, one of them will not identify English as their first language. In the modern call model, language translation is practical, with the messages that start the

conversation identifying the languages spoken. When a voice call results, then third-party interpreters can manage the language gap. For governments and consumer brands, the modern call model allows them to speak their customers' languages.

In the old call model, real time language translation is impractical. For all the progress we've made in other areas, we are not yet able to translate voice in real time. Smaller companies aren't able to staff their centers perfectly with the population they serve, ending up in the devil's choice between inefficiency and bad customer experiences. And, forced to start the call with voice, we find out too late that there's a language barrier.

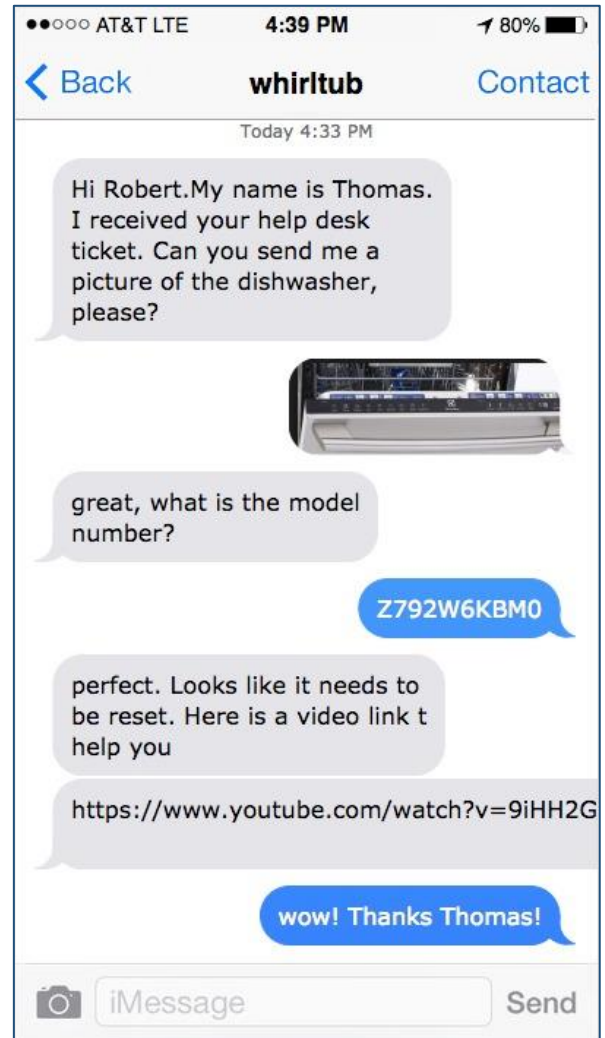



Modern Call Model Vignette: Support Care center

On plugging in his new dishwasher, Robert only sees blinking red lights on the front panel. Undeterred, he visits the manufacturer's support page, fills out the trouble ticket form and leaves his cell number. After Robert's ticket is created, it is sent to a group of expert agents, where each selects the tickets they can address. Robert receives a text message on his cell, introducing his agent, and asking Robert to take a quick picture of the label, so that the agent can identify the model. Soon, Robert receives a link to a troubleshooting video. The agent asks Robert to watch the one-minute video, and two minutes later the dishwasher is reset.

Even when we stand in front of each other, the smartphone is an essential tool of explanation. Smartphones allow us to access any form of media: web pages, videos and other applications. The modern call model uses messaging to carry the conversation, and to carry media that support the conversation. To steal a phrase, one photo is worth a thousand text messages. Messaging has a natural ability to escalate into other apps, to deliver the right link, and to enable bi-directional sharing of rich information.

In the old call model, information is restricted to voice. Delivering computer-centric information, such as websites and emails by agents, is painful. Delivering information from the customer to the agent is practically impossible. Since inbound calls cannot be introduced over messaging, customers needing live support are forced to call and wait





their turn. If customers are waiting for a call back, they are also waiting with the anxiety that they will miss it.


Future of Business Communications

SMS Text: A Magic Key

Real-time communications of all sorts are much easier on mobile devices. From social networking to SMS, communications between people have exploded. A single tweet can communicate to millions of followers; your cute GIF with the cat falling from the fence entertains all your cat-loving friends. SMS, above all others, has taken its rightful place as the most important tool in the human communications toolbox for two simple reasons. First, people simply prefer messaging. Children can do anything with a smartphone, but they invariably use their thumbs to message each other. Messaging is convenient and polite, you pay attention to it, because it doesn't monopolize your attention. Secondly, large number of your friends won't use the same social network, leaving SMS as the only messaging network everyone in your life uses. In other words, the US Army is not going to base its communications on Facebook Messenger. Ever. As a universal connector of people, globally recognized and available, that uniquely identifies every consumer in the world, SMS wins.

A Universal Connector

The mobile device has become a kind of proxy for the person herself. It is the primary conduit between digital and analog lives. We connect to our data through our handsets, but only through the mobile computer portion of the smartphone. The phone portion of the device remains active in a single context: the exchange of SMS in anticipation of a call. In a bit of fortune, the single aspect of the phone which uniquely and globally identifies the person is the SMS number itself. Thus, as a vehicle for identity and security, as a key to unlock digital assets, and as a tool for managing our digital selves, the mobile phone becomes the universal connector.



In addition to uniquely identifying the person, SMS can also uniquely identify the problem to be solved. Imagine a toner cartridge with the simple label “To refill, text 76644 to +1 555-666-4444.” These numbers, described by the E.164 standard, can represent any problem to be solved, are easily added to consumer packaging and television advertisements alike. They work worldwide, do not require translation and are easily communicated. Unlike URLs, which have no legal protection, all countries regulate their telecommunications infrastructure. In addition, since URLs come at little to no cost, they are ripe targets for spam and other malfeasance.

The Digital Workforce

Today’s silver bullet for customer communications are virtual assistants and chat bots, Siri and Alexa. People prefer messaging, and the common language of computers and humans is ASCII. Connecting to the software of a business is substantially easier when the lingua franca is text. Experts predict that innovation and the rise of sophisticated automation all but guarantee that by 2025, customer care centers, as we know them, will be obsolete.

Experts describe the care center of the future as a collaboration between AI/Bots and super agents. Each side of this partnership supplies clear benefits to both customers and business. The foundational argument of artificial intelligence and chat bots are their ability to offload employees and make conversations efficient. Unlike people, bots don’t take vacations. They scale with demand, and can be improved over time. Bots can represent specific learning, and can be leveraged across teams and companies.

One day, bots will be smart enough to be empathetic, to understand sarcasm, and maybe, to tell a good joke. Until then, humans are a required element of any good relationship, and customer communications is all about relationship.



Conclusion: Form Factor Dictates Communication

Armed with only fire and a blanket, early man fashioned smoke signals. Later handwriting was ushered in with pen and ink. Later still, the miracle of the printing press gifted us with mass printing and communication to transform civilization. It is easy and interesting to trace the evolution of communications to understand how the form factor dictates the mode of communication in every age.

Today, the smartphone is embraced globally in even the poorest backwaters. (It is estimated that there are more mobile phones in the world than there are toothbrushes). It is a device grounded in digital, which dictates that text-based communication be ascendant. And happily so, since data are the life blood that is flowing through new generations of innovation, especially AI, bots, and machine learning that will transform science fiction into science fact in a not too distant future.

A modern call model, with text-first as its defining feature, is the answer to today's smartphone nation that demands frictionless communication and experiences. While older generations might reluctantly tolerate the outmoded call model of their youth that puts voice front and center, along with cumbersome IVRs, and the challenges presented by off-shore agents, millennials will show no such patience.

Across the world, fast fingers are pounding out rapid, short, extremely efficient and personalized messages. It is inconceivable that business will be given a pass much longer. They, too, must become text centric to survive and thrive. Just in time, the modern call model has arrived to help us transition from a past dominated by voice to a future that will run almost entirely on data. Ignore the modern call model at your peril. Embrace it instead for success.