# audit report

# a season to celebrate

## TMA's Chief Executive Officer wraps up 2018  |  *by Chip Cooke*

I'm tired of sweating – I just am. I can't remember the last time I had to endure temperatures in the Carolinas above the mid-eighties throughout October. It's not alright, and I'm not okay with it. I love the Fall and the cool mornings. Who wears a t-shirt on Halloween?

Part of the frustration is the constant need to change sweaty clothing while doing the yard work on weekends, but part of it is just my inability to be patient as I await my favorite season of the year. Don't get me wrong, I love watching my boys surf in the summer. I can certainly appreciate Spring and Easter, the flowers of April, and the first days of school in August. I enjoy taking the family fishing and watching fireflies on late summer nights. Watching them bounce around the pool for hours on end remind me of the youth and enthusiasm I've lost over

the years, but dangit, the heat just wears me down. I'm a Fall and Winter guy for a number of reasons.

The Fall for me is about changing colors, falling leaves, hoodies, and college football. It's the first time you see your breath on a November morning and the true kick off of the annual hunting season. But first and foremost, it is the start of the season of thanks. Really, we should be actively grateful throughout the year, but the third week of November brings our gratification into sharp focus.

Thanksgiving can be a number of things for a variety of personalities. It can be a hassle getting the family to agree to a menu, or maybe an argument over who stays in what room for the extended holiday. Honestly, I hope that's not the case.

For me, and I hope for you, Thanksgiving is the time to reflect on all of God's gifts in our lives and the abundance of joy that comes with that. This is a time for family coming together, bountiful meals, lots of preparation, and good conversation. Giving thanks is just the precursor to the Christmas season that is right around the corner. For much of my life it was not my favorite time of the year.

Shortly after the turn of the millennium that all changed and my eyes were opened to the enormous joy that this season brings. After Kathleen and I started our family, I realized how importantly special Christmas truly was. I have fallen helplessly in love with fraser firs, garland, and flashing lights. I can sit for hours on end after the boys have gone to bed and stare at the family tree in the sunroom with decorations

from throughout the years. Although I hate the crowds, I have learned to love watching the boys peruse aisle after aisle of trinkets searching for some gift that speaks to them, "Mom would love this."

Sweaters, peppermint, living nativity scenes, and carols on a horse drawn wagon now speak peace to me that no other time of the year can. I wouldn't trade it for anything and I wait all year for those four precious weeks.

In the Fall of 2012, when I started to teach adult Sunday School, my first lesson was from the Gospel of Luke, Chapter Two. I don't believe in coincidences anymore so I count this as the point of my true spiritual awakening. At the time my sons were five and three years old, Kathleen and I were deeply involved in a class called Faithful Parenting at our church.

Luke Two was my first assignment and to this day it may be my favorite passage in the Bible.

It reads, starting at verse eight:

*[8]In that region there were shepherds living in the fields, keeping watch over their flock by night. [9]Then an angel of the Lord stood before them, and the glory of the Lord shone around them, and they were terrified. [10]But the angel said to them, "Do not be afraid; for see—I am bringing you good news of great joy for all the people: [11]to you is born this day in the city of David a Savior, who is the Messiah, [a] the Lord. [12]This will be a sign for you: you will find a child wrapped in bands of cloth and lying in a manger." [13]And suddenly there was with the angel a multitude of the heavenly host, praising God and saying, [14]"Glory to God in the highest heaven, and on earth peace among those whom he favors!"*

For me this is the story of hope and peace on Earth, and yes, I still hear it in the voice of Linus from my youth. This passage embodies innocence, generosity, and everything good in the world. Each year I grasp on to this as tightly as possible knowing that in January it will start to fade away again until the next Fall and Winter seasons.

This year I would encourage you to seek out your own spiritual peace and hold on to the good things in life. Be boldly grateful, hold tight to loved ones, and celebrate every blessing in any given day. Recognize that there are only so many of these times in any lifetime and they should be cherished as the special moments they are.

From the extended TMA family, we hope you have a very special holiday season!

# ask jay

## The man behind Sales & Marketing | *by Ryan Hunter*

**What is it like working at TMA and directing the Sales Team?** *My three years at TMA have been a great and rewarding experience. It is an exciting time for the Sales Team as we look to explore and expand on our services and territories around the country.*

**Who is your favorite Sales Team member?** *All of them. Everyone has unique qualities and I enjoy spending time with each of them. Ryan, I know that is not the answer you were looking for, but it is true!*

**How would you describe TMA's marketing?** *I think we do an impressive job with our marketing. We have made an effort to keep current with the latest marketing tools, update our website with the latest news, create new material, and issue this Audit Report publication to our audience. This is our 54th edition.*

**When did you get into this industry?** *I got into the Assessing industry after applying for a job straight out of college. I may be giving away my age a little, but I thought I was killing it when I was offered $13,000/year.*

**What is your favorite thing about the work you do?** *Over the years, I have had the chance to meet so many interesting and wonderful people. People that are not only colleagues and clients, but people that I can call my friends.*

**How has your move to Charlotte been?** *It has been wonderful. Living in Uptown Charlotte has been a cool experience. Having everything available right outside your doorstep is so opportune because the city has so much to offer.*

**Where do you go when you when you have time off?** *Straight to Seabrook Beach in New Hampshire. I have been going there ever since I was a kid.*

**Who is your celebrity look-alike?** *My friends always tease me and say I look like Terry Francona, the former Manager of the Boston Red Sox and current Manager of the Cleveland Indians. Instead, I wish that people would mistake me for Rob Lowe, Brad Pitt, or Tom Brady. (FYI - Jay is obsessed and madly in love with Tom Brady)*

**Have you ever lied to impress someone? What happened?** *Yes. The person I told the "white lie" to married me.*

**If you could solve one problem in the world, what would it be?** *World hunger. It breaks my heart every time I think of an infant, child, or adult that has passed away from hunger.*

**Which sports hero would you pick to exchange lives with?** *I would have liked to live the life of Bobby Orr during the days of the "Big Bad Bruins."*

**If you had to endorse a brand, which brand would it be?** *I would have to say Disney. No other brand in my mind has brought more joy to people, whether it be through books, movies, or theme parks.*

**What are you addicted to?** *Anything that has chocolate in it.*

**Who have you been inspired by?** *I've had the opportunity to volunteer with the Special Olympics organization over the years. Being around all the participants and witnessing how hard they compete inspires me most.*

**What is the luckiest thing that has happened to you?** *I got married to my wife and we had an amazing daughter.*

**What was the best compliment you've received?** *That I am honest, courteous, and a straight shooter.*

**Name your biggest pet peeve.** *Littering. I cannot stand it when I see people litter! (One time Jay told me a story where he got out of his car and handed trash back to someone that littered at a stoplight)*

**At what restaurant did you have your favorite meal at?** *My favorite restaurant in Boston, L 'Espalier.*

**What is special about the place you grew up?** *I grew up in a town called Chelmsford, Massachusetts. It was a very close community with fantastic neighborhoods and great sports programs. I am still fortunate to occasionally get together and keep in touch with some of my best friends that I grew up with.*

**What musicians and type of music do you like to listen to?** *After Sinatra, I am all over the place. I like several types of genres and artists from Karen Carpenter, Anita Baker, and Whitney Houston to Elvis, Luther Vandross, John Legend, Jackson Browne, and James Taylor to Chicago, Jethro Tull, Van Halen (David Lee Roth days), and AC/DC.*

**What is your favorite movie?** *I have many favorites, but whenever I channel surf and come across one of the following, I always stop and watch: The Outlaw Josey Wales, Brian's Song, Rudy, Miracle, Braveheart, Good Will Hunting, and Step Brothers.*

**Share a personal fact no one would ever guess about you.** *With my full name being Angelo Joseph Taranto Jr., no one ever knows that I am half Irish. No wonder I love St. Patrick's Day and corned beef and cabbage.*

**What is your favorite quote?** *My favorite inspirational quote is: "We make a living by what we get, but we make a life by what we give." My favorite fun quote is: "A pizza without cheese is like a kiss without a squeeze."*

# telling the future

## *The prime of predictive analysis in a world of open data* | *by Mark Cooke, Ph.D.*

Cheap computational power, access to massive amounts of behavioral data, and flourishing data science algorithm tools have created an environment where most types of "predictive" analyses have seen a massive boost in their performance. Imagine the online shopping cart experience, for example. Of all the millions of online shoppers, an algorithm can effectively put a singular desired item in front of an individual buyer.

What all of these algorithms have in common, and where they slide away from traditional descriptive statistics, is in the ability to distill massive amounts of data down to a single predictive event. This is no longer an average of averages. It is a specific pin point single entity sharp shooting of telling the future.
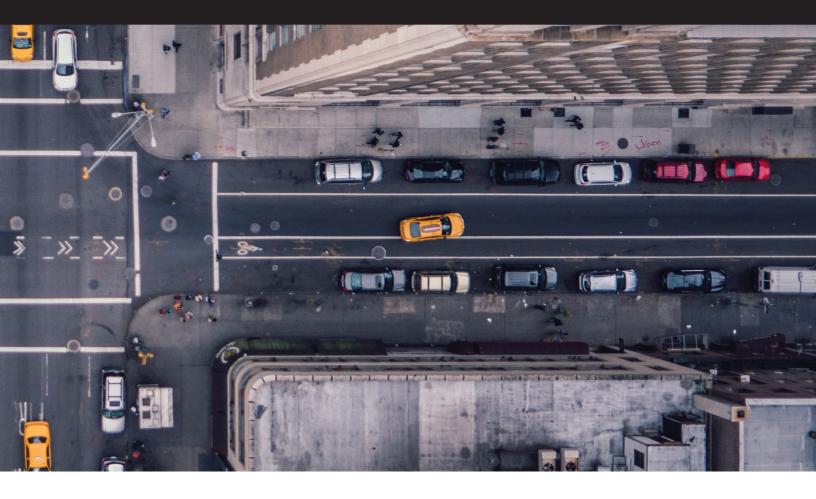
Where will this bear fruit in our industry? Lots of places. It already has, actually,

but the concept and the methods are becoming much more widely known and available. The proliferation of open data and open source technologies for data science has grown so much in the last five years that it is becoming common to see it in all industries, from large entities to small businesses.

In government, the concept of open data will continue to drive the innovation. As we learn to share data across platforms we start to unlock some of the potential. When this expands across departments, or even across jurisdictions, then things really start to get powerful. Think about this in terms of the influence of property data on police data, or vice versa of course. Perhaps we might even look to utility data and its influence on predicting investment or school performance. The applications are endless, to use a pat phrase, as long as we are breaking down the historical and traditional barriers

between data repositories.

This is not just left up to individual innovators, either. We have experienced the creative leaders who might have insight into these trends, or even suss out "what's possible" in the midst of what we are doing everyday. However, when it comes to data science we will shortly need teams of innovators, and stakeholders, and data engineers, and programmers, and GIS specialists, and domain experts… the list goes on. But the point I am trying to make is that this is a team sport now.

If we wanted a more concrete example on how all this comes together, we can think about how this might impact property valuations, and, interestingly, describing property sales. Historically, this has been the realm of descriptive statistics and mass valuations. We didn't predict sales, but reacted to them. The industry

modeled those sales after the fact based on house qualities, neighborhood or land maps, and various global characteristics.

However, what if we could mathematically review all properties individually, without the need for regression, but specifically looking at the property's own specific characteristics? All of them. We can account for a property's square footage, acreage, age, siding, height, road frontage, geographic location, and heating source - just to name a few. How do all of these impact the property value and more interestingly, will that property sell in the next twelve months?

As it turns out, we can do this. Handily. We can build a model from past sales that doesn't describe the environment, but that sets up a model that tells the future. And, it will do so relatively accurately and most of the time. I haven't been able to experiment to any great extent, but

what we have looked at so far can tell us if a property will sell in the next twelve months. A specific property. That model can then be extended to suggest what the sales price will be. Amazing.

But there is a piece that is even more amazing. We can add more data, non-property related data, and get even better results. What kind of data? So far we have worked with geospatial data and, essentially, proximity to special features; things like parks, lakes, or grocery stores. Turns out even this simple data addition adds a substantive boost to the models' performance.

So what if we had even more behavioral data? Data about demographics in the marketplace? Data about social trends, or political boundaries, or who knows what? My gut tells me the model would perform even better still. The better we can describe the entities (adding more

data qualities) the better the predictive models get. Will it impact the way we do business? I suppose so, since we aren't the only ones who will use and have access to this technology.

We can do all of this using the tools and techniques of data science, open data mentalities, and the open source tools available on the market. What it will take is a shift in the perspective, and then the slow gradual cultural shift in the way we do business. But that will come, too. Change is inevitable, and welcome when this exciting and profound.

## data discussions

**Continue diving into the realm of open data by contacting our Chief Information Officer, Dr. Mark Cooke.**

**Mark.Cooke@tma1.com | 704.847.1234**

Unpredictable problems.
Market changes.
Diminishing budgets.

## Who is helping you?

## Revenue Enhancement for State & Local Government

Nearly four decades of serving highly satisfied clients across the United States.

To learn more, please contact:
Tax Management Associates, Inc.  | 800.951.5350

**tma1.com**

**TAX MANAGEMENT ASSOCIATES, INC**