Do You Trust the Meat You Buy?

(How Blockchain is bringing transparency to the meat Industry)

Without getting into technical details, it will first help to understand the basics of blockchain at a high level. A blockchain is a tamper proof, shared, digital ledger that records transactions. This ledger permanently records, in a sequential chain of blocks all transactions that take place between the peers in a network.

All transaction blocks are linked and chained from the beginning of the chain to the most current block, hence the name blockchain. The blockchain thus acts as a single source of truth, and members in a blockchain network can view only those transactions that are relevant to them.

Now let us see how this is being put into action in the meat Industry where some interesting developments are gradually beginning to emerge.

We as consumers buy meat often from stores we frequent. We intend to buy the best for our family. We trust the labels. However, it helps to understand more about where the meat we buy comes from.

In 2013, the world’s yearly meat production hit the 250 million metric ton mark. This is equal to about 830 times the weight of the Empire State Building in New York City, per year.

Meat originates from ‘animal farms’. At an animal farm, the action begins with animal feed. Feed and its ingredients...
requires to be tested for chemicals and foreign bodies. Grass fed meat has a lower fat content and fewer calories—65% less fat and 50% lower calories. However, only 6% of meat in the market are grass fed. Wegman’s is an example of a company which sources its meat from Uruguay where animal farms raise 100% grass fed cattle. Strangely, no other company has come close to Wegman’s care for qualify of meat.

Unfortunately, most of the rest of the meat in the market undergoes “marbling”. Most animal farms indulge in fattening. Marbling means during the final 120 to 150 days, cattle are fed with corn and put on a specific feed regiment where antibiotics are used extensively. Imagine the thousands of animal farms worldwide where feeding of animals is almost completely unregulated and where audits and inspections can be rigged at convenience. In 2017, large retailers such as Tesco, M & S and Sainsbury were accused of selling meat past its expiry date. It was found that the meat supplier had been tampering with food safety records.

With more meat scandals making it to the headlines, a meat goods manufacturer (and our client) in Asia decided to pilot with a blockchain initiative as an initiative towards building transparency and trust with their retailers and consumers. Their goal is to introduce inspections at every stage - from broiler production, hatcheries, inspection of feeds and feed mills. To avoid manipulation of data, this manufacturer is currently piloting Blockchain so that data tampering simply cannot be done. This is important as most meat-based product manufacturers struggle when ‘meat scandals’ break out leading to sudden plunge in revenue streams. Therefore, implementing third party audits and inspections demonstrates to stakeholders,
customers and consumers alike, a business’ commitment to safety and quality.

Transportation of animals from far flung farms to slaughterhouse is another important aspect. It is fraught with risk. It becomes stressful for animals. Not to mention injuries and disease. So, this manufacturer decided to set up independent surveillance where animal welfare experts visit farms to oversee (a) the rounding up of animals (b) Loading of livestock/poultry for transportation (c) Inspect sufficient floor space for cargo. All these steps allow the inspectors to provide objective confirmation for transport between farms and to the slaughterhouse.

Next, at the slaughterhouse, inspectors can monitor unloading as well as log each new arrival. They will check animal records against delivery notes and monitor the cattle through the slaughterhouse process. Inspectors use their Android tablets to record all such data which then get saved as permanent data on the Blockchain. Once slaughtered, meat products are deboned, cut, prepared, packaged and finally packed or transportation- details of which are monitored by onsite inspectors who upload the data to the Blockchain network.

All the above steps ensure the meat company now leverages tamper proof history of data related to feed, origin of animal and feed, date of birth, age verification records, health check records, diet details and transportation details.

The meat manufacturer thus relies on a digital ledger that is completely transparent, tamper proof and distributed. Retailers can trace back a lot more details about the meat they are procuring. More importantly, consumers get to confirm authenticity of food products by relying on tamper proof data captured all through the chain.

Given the number of scandals and concerns about food safety, Blockchain technology has a relevant use case to prove that this technology can truly make a difference especially to consumers who rely on their local retailers to source the safest food choices. Blockchain provides a solution to transparency and traceability issues by brokering trust between all the supply chain actors - which apparently is the biggest need for the meat Industry, given the spate of data tampering and associated scandals.

*Manoj Balraj*

Co-founder, Experion Technologies
Speaking ‘Engineese’

As engineers, we are often tasked with making technical presentations. Public speaking, in general, is one of the most feared activities, let alone speaking on technical matters. Unfortunately, how we present may be a deal breaker, whether it be for an investment, a new job, a promotion, or a grade in a class. So, what does it take to make a presentation interesting or effective?

There is no substitute for good communication skills, or the ability to express your ideas succinctly and clearly. Some confuse good communication with good language, but that is not the case. There are people who can use big words and Shakespearean constructs in their sentences with very little information coming through. It does not take a great speaker to know one—most of us can appreciate a good speech when we hear one. Pithiness is tiring, and verbosity is boring, if not outright useless. So, strike a balance between the two. With that out of the way, let’s turn to some of the mechanics we can focus on to improve the quality of our presentations.

Three words: preparation, preparation, preparation. Anybody who is in the business of giving talks on a regular basis will attest to this. The first step in preparation should be knowing the audience. We cannot possibly give the same talk in front of high school students, senior design engineers, or to a group of C-level executives. We should plan and practice different levels of abstraction to match the audience appetite, often in real-time. The next critical element of preparation is the organization and sequencing of information delivery. That’s almost like looking at the map before you start driving and deciding which route to take, at what speed, where and when to take coffee breaks to keep awake etc. Having some backup plans is always recommended as there could be unforeseen detours forced by a special request, question or concern from the audience, or because you have a brain freeze in the moment. If you are not used to giving talks regularly, a couple of dry runs of the talk is good. However, too many of them could be counterproductive as sometimes presenters
themselves will be bored come the presentation time, which can then lead to intellectual laziness resulting in an uninspiring representation. So, find your goldilocks medium, and stick to it.

With technical presentations, a picture is worth a thousand words, and a video is worth a thousand pictures. Pictures, videos, audio clips and such are all helpful media to convey ideas. However, bear in mind that if those visuals can tell your story in its entirety, there is no need for you to present. Use them as an enabling accessory, not as an annoying distraction. I advise my students to follow a simple pyramid rule: the top layer is what you show, the middle one, what you say, and the bottom layer, what you know. Never capture everything you want to say on your slides or video. When you have too much information on the slides or other media, the audience has the tendency to read it or watch it and try to understand the information by themselves, and what you say gets submerged in the background as noise. Your verbal presentation should help them connect the dots that are presented on the visual media. This will encourage them to pay attention to what you say and stimulate their curiosity for what you will say next. You have to know more than what you are presenting. It makes for an elegant presentation when you are able to answer questions beyond what you presented, the audience will feel comfortable and confident in the depth and clarity of your understanding of the subject matter.

Which leads to another important aspect of a presentation: even though speaking in front of an audience may appear to be a unilateral exercise, it is not. Every nod, every smile, every engaged look is a form of constant feedback to the presenter. Almost invariably, the audience wants us to succeed. After all, if we fail, they are wasting their time too. Once we realize that we are engaged in a collaborative endeavor with the audience, we will feel safe and energetic and that spirit will transpire through. A great way to establish this engagement from the outset is to use a little humor as an icebreaker. A good joke will put you and your audience at ease. Caveat, if you are not comfortable with telling jokes, then don’t force it, as it is not essential. Still, a little self-deprecation, a little humility – try to use “we” instead of “I “wherever possible, and a little display of vulnerability (it’s alright for the audience to find out you don’t know everything under the sun) will go long way in telegraphing the audience that you intend to be one among them, even though you are standing on the podium.

One final note: what you feel at the end of a presentation may not always be indicative of how well the presentation was received. If you feel good that you could cover all the relevant materials as you planned, most likely, the presentation went well. Don’t feel alarmed if you felt it was a dud; few in the audience may have dozed off, some ask questions to trip you off your path, all these come with the premise. Don’t get offended by these types of reactions. I for one often think that the only reason I am not dozing off during my own presentations is simply because I am the one standing up and talking. Be serious about our presentations, but don’t take ourselves too seriously. As long as the audience walks away thinking they learnt something new, it is a success. That’s all there is to it.

If you can marshal purpose and authentic humility in your presentation, I promise, even a technical presentation could be an enjoyable experience--one that you look forward to.

Dr. Suku Nair
Director, SMU AT&T Center for Virtualization
University Distinguished Professor
St. Ann Mission, Laredo 2018 – A Travelogue

Through St. Ann’s, a local Catholic church in Coppell, High School Ministry program, students were given the opportunity to serve the community and reach out to the underprivileged in the dioceses of Laredo, TX located close to the border of Texas and Mexico. For over 140 high school students, including myself, this trip was incredibly eye-opening and formative in both areas of service and religion.

6 July, 2018

The first and last days were entirely travel days as by bus the trip is 8 hours. I woke up early in the morning at 6am and said goodbye to my family, a little nervous as I have never stayed apart from them for longer than a couple days. Once I got on the bus, I was immediately welcomed and the 8 hours went by quickly with talking, reading, journaling, and sleeping. That night was spent with praise and worship then a much-needed nights rest.

7 July, 2018

In my opinion, the first work day was the most tolling both mentally and physically as we had to wake up early at 7am and go to daily mass each and every day as well as say the rosary while traveling to our respective site. We worked at a church about 15-20 minutes away and we worked on constructing a new shed for special items for the church. The first day was particularly laborious with plenty of wire cutting, digging, and heavy lifting.

8, 9, 10 July, 2018

Sunday was a day of rest. Starting up with a nice dressed Sunday mass the day was entirely relaxing with dodgeball tournaments, masterclasses, and plenty of free time to rest up for the next day’s work. Monday began with Vacation Bible School and learning various songs to sing to children. The earlier part of my day was filled with music, snacks, arts and crafts and lots of fun. All of the children were incredibly sweet and it was interesting to see the wide spectrum of personalities of the children of Laredo. Once we began constructing the frame of the building, I was tasked with cutting wood and drilling the wood structure through which I learned how to use both a electric saw and a drill. The work days were pretty strenuous and the afternoon meal of Mexican food such as empanadas, tostadas, and more were much anticipated and appreciated.

10 July, 2018

On this day, I met some new friends named Leslie, Yanira, and Stephanie. While painting the lines on the parking lot, we had discussions about our lives, our futures, pop culture and much, much more. What I found fascinating was as different as these girls were from I was back home we bonded instantly over our similarities and even our differences.

11 July, 2018

One thing I believe this trip has improved is my discipline and timing as each day mass, breakfast, leaving, dinner etc. would all be done in a timely manner. In addition, no technology was allowed on the entire trip, essentially forcing normally phone-addicted teens to interact or find other things, such as cards or friendship bracelet making to keep them busy in their free time. I did discover that in this period without technology that I got a better nights rest each day and found myself more aware of the people and things around me. In this way, this week was truly a retreat from the stress back home. Although we just finished the lower layer off the roof, the entire project was strenuous team effort.
The last day at Laredo was a bittersweet memory as I had to say goodbye to all of the wonderful friends I had made there. On the last day, the wonderful ladies that served us lunch throughout the week. We celebrated at a fiesta with lots of Mexican dulces, flower crowns, and piñatas. We took plenty of group pictures and gathered up our stuff saying our goodbyes to the wonderful city that had hosted us for a week and had taught me so much...

Anitta Nitto
12th Grade, Coppell High School, Coppell
Daughter of Nitto Joseph & Athira Nitto
Positive Thoughts

Nowadays, we hear a lot about positive thinking. In the present world where there is so much stress it has become imperative that you have to think positively if you are to confront the problems.

One morning when I came out of my house it was a pleasant day with fine weather and sunshine that made me happy and relaxed. There, in the garden I see a new beautiful flower blossomed. I was wondering how this flower with its beauty and fragrance makes anybody so happy. Suddenly another thought comes to my mind - that by the end of the day this flower will fade and a subsequent fall is also inevitable. True, but why should I spoil the happiness I felt this moment on seeing the flower with such a negative thought?

I am reminded of the book “A New Earth” by Eckhart Tolle which I read recently. Tolle confirms that we have to see life inseparable from the “Now”. We often tend to carry our past. As human beings our past has definite influence on our present but Tolle says that we have to get rid of that “Past” factor. He gives a short story to illustrate.

Two Zen monks, Tanzan and Ekido were walking along a muddy road. Near a village they came across a young girl who was trying to cross the road. It was very difficult for her with her long dress to cross the muddy road. Tanzan at once picked her up and carried her to the other side of the road and the monks walked on in silence. Later when they were approaching the lodging temple, Ekido asked “why did you carry that girl across the road? We monks are not supposed to do such things”. Tanzan replied “I put the girl down hours ago. Are you still carrying her?”

The lesson: “Cultivate an attitude so that our present is not spoiled by negative thoughts carried forward”.

It is possible that there can be thorns also in the plant along with the flowers. Let us take the thorns as integral part of the whole plant. Likewise thorn like experiences are inevitable in anybody’s life. All great philosophers, religious scriptures and spiritual masters have taught that such experiences, which again are subject to later changes should be faced with courage and positive attitude.

We have the glaring example of the great theoretical physicist Stephen Hawking. In spite of the motor neuron disease that paralyzed every part of his body he could face it and achieve so much. It may seem it is not very easy to practice but with constant and honest effort, it is possible!

We know that one minute of anger weakens the immune system of body for 4 to 5 hours whereas one minute laughing boosts the immune system. So why not we try to be positive and make the world around us happy? That will make our life meaningful and worthy. The present world needs people with such outlook so that the future generation can learn from us.

Rama Devi
Mother of Sujith Menon
Count Your Blessings

There is an importance to the virtue of being content that many people overlook. In doing so, they shut the door that could lead to a world of opportunities for prosperity and happiness. While they go about their daily lives listing every speculation about what could be changed, we must open our eyes to what we could gain by simply embracing what is already ours.

There is a Scottish proverb that states, “Do not judge by appearances; a rich heart may be hidden under a poor coat.” All the different aspects of happiness are infinite. They do not limit themselves to the materialistic walls of wealth and fame. A person who is grateful is a person who is truly happy. On the other hand, the health benefits to being content are priceless. According to Melanie Greenberg Ph.D., a study conducted at the University of Miami proves that a moment of gratitude improves not only one’s mood, but the quality and length of his or her sleep as well. [1] Ultimately, the results declare that taking a second to count your blessings can amount to more than you’d think.

At many times we as human beings are prone to being blinded by the notion of what we could have instead of what we do have. Now, of course there is a big difference between striving to be a better person and striving to have better things. What you have is not who you are. Once a person is content with that, he or she can continue to move forward in improving his or her self as an individual. In this way, we are bound to get more done.

It’s easy to look past all that we have. For goodness sake, they’re with us day and night! But true happiness presents itself when you dig up the willpower to begin appreciating your blessings for all that they are. And trust me, once you find that feeling of content, the world will suddenly become a whole lot brighter.

Works Cited

Emma Abraham
8th Grade, Forestwood Middle School, Flower Mound
Daughter of Nivi Abraham & Lijimol Maliakal
### Poems

#### Slum Pangs

In the candlelight  
Enveloped in deathly darkness  
Inside the thatched hut  
Her little eyes sparkled  

Her book had no pages  
Learned no words  
Withered pencil  

Pretty eyes  
Unkempt hair  
Toes curled into the dirt filled floor  
She waits with joy  

For her worn out mama  
Brings to this beloved little one  
The first meal of the day  
In the candlelight  
Enveloped in deathly darkness  
Inside the thatched hut  
Her little eyes sparkled  

Her book had no pages  
Learned no words  
Withered pencil  

Pretty eyes  
Unkempt hair  
Toes curled into the dirt filled floor  
She waits with joy  

For her worn out mama  
Brings to this beloved little one  
The first meal of the day  

*Manoj Balraj*

#### Stories Untold

With the words stuck in my head  
And the images coming to light  
I can’t help but notice as I write  
Stories from afar  
I use them today  
For there is nothing in the past  
That couldn’t influence today  

Bring me some color  
The red of ruby  
The green of emerald  
The blue of sapphire  
Yet what good are jewels?  

In a lifetime of wealth  
Reach higher they say  
There’s nothing the sky can’t achieve  
I watch and stare as others progress  
Forgotten are simpler times  

When life was merely a story to tell  
Tales were woven at dinner everyday  
Fairies and magic rides  
Demons in disguise  
Heroes everywhere  
Humans with stories to narrate  

Gone are those times, stories have been told  
What remains of the legacy of dusty books and scrolls?  
Disappeared into an everlasting abyss  
Destined to rot in times own bliss  

*Anisya Nair*

9th Grade, Liberty High School, Frisco  
Daughter of Santhosh Jayakumar & Taruna Pamnani
Recipe Corner

Tandoori Chicken

**Ingredients:**
- Chicken (thigh or breast)- 2 lbs. cut in small cubes
- Marinade
  - Ginger - 1 Tbsp (minced or crushed)
  - Garlic - 1 Tbsp (minced or crushed)
  - Lemon Juice - 1 Tbsp
  - Kashmiri Chilli powder - 1 Tbsp
  - Black pepper - 1/2 teaspoon
  - Salt - 1 1/2 teaspoon
  - Chaat masala - 1 teaspoon
  - Garam masala - 1 teaspoon
  - Chilli powder - 1 teaspoon
  - Turmeric powder - 1/4 teaspoon
  - Cardamom powder - 1/4 teaspoon
  - Kasuri Methi - 1/2 teaspoon
  - Red color - 1/4 teaspoon
  - Yogurt - 4 Tbsp
- Mustard or similar cooking oil - 1 Tbsp
- Gram flour - 2 Tbsp
- Butter – 2 Tbsp

**Directions:**
1. In a small mixing bowl, stir together all the ingredients listed in the marinade section.
2. Marinate chicken cubes using the marinade and put in the fridge for at least 2 hours.
3. Add oil and gram flour to the marinated chicken just before grilling/broiling.
4. Thread the chicken onto the skewers.
5. Place the skewered chicken on a grill pan with drain holes, then place grill pan with chicken on top of a baking pan so the liquid from the chicken will drain into the pan.
7. Brush butter on top of chicken, then turn the chicken over and broil for another 10 mins on the other side.
8. Brush the other side with butter. Tandoori Chicken is ready to serve 😊

_Binalfa Kattampally_

Date Bars

**Ingredients:**
- 8oz chopped dates
- 1 cup chopped golden or regular raisins
- 1 cup chopped pecans
- 2 cups Rice Krispies cereal
- 1/2 cup sugar
- 1 stick butter

**Directions:**
1. Melt butter, add sugar, boil for a few minutes
2. Add dates and raisins until it becomes a mushy consistency.
3. Then take off stove and add cereal and pecans and mix well.
4. Spread on 9x13 buttered pan.
5. When cool, cut into pieces and serve.

_Alice Thoppil_
Music Night

The first Music Night of 2018 was held on 23rd March, 2018 at St. Mary’s Malankara Church auditorium in Carrolton. MEANT members and families were treated to melodious music by our singers in the group. Homemade food with a variety of dishes made this evening a truly family event.
Music at MEANT

Music is the universal language that connects people of all ages, beliefs and ethnicities. I perceive music as a collaboration of notes and rhythms that pulses through my entire being, resonating and reverberating through my very core.

There is no precise way to interpret or express music. The Malayalee Engineers Association of North Texas uses this as an opportunity to bring Malayalees of all backgrounds together by allowing them to connect through their love for the art of music.

After spending the first 14 years of my life in Minneapolis, my family’s move to Dallas was not an easy one. This life transition brought with it so many emotions - sadness, happiness, fear, and apprehension. The first social event I attended here at Dallas was a MEANT Music Night where I met many of the people I call my closest friends today. Attending a few of these fun and welcoming events played a huge role in how I was able to cope with the change. Music does not present any boundaries to those who experience its ebb and flow; and being a part of this group enabled me to enjoy the artistic freedom that comes with it.

Through the test of time music continues to have unifying factors that are conveyed through rhythmic and melodic arrangements that follow theory. People encounter various events during different stages of their lives, but music remains incessant and helps many overcome their struggles and hardships, and rejoice their successes.

Today I’m delighted to call Dallas my home and have MEANT music nights to thank for friends who are family.

Niveda Sangeeth
UT Dallas
Daughter of Sangeeth Ponathil & Priya
MEANT Picnic

Blessed with a beautiful day, the picnic witnessed a huge turnout of MEANT families. Along with traditional barbecue, the team served South Indian breakfast, fresh omelets, tea, grilled pineapple, kappa, fish curry and many more items. Field games included volleyball, badminton and cricket. We saw some real tough fights in musical chair, tug of war, lemon and spoor race, shot put and other games.
Life Skills

MEANT BOD 2018 planned a series of session to MEANT families during the summer vacation on wide variety of topics. Started with the Introduction to Yoga and Basic Baking sessions in June 2018. More sessions will follow in the coming months.
Upcoming Events

Please mark your calendars for the upcoming events planned for the rest of the year. Details about the events will be communicated as we get closer to the individual event dates.

- 1\textsuperscript{st} September, 2018  
  Kerala Night (Music Night # 2)
- 22\textsuperscript{nd} September, 2018  
  Professional Event
- 6\textsuperscript{th} October, 2018  
  Math Olympiad
- 20\textsuperscript{th} October, 2018  
  MEANT Camping
- 3\textsuperscript{rd} November, 2018  
  MEANT Fest
- 15\textsuperscript{th} December, 2018  
  Music Night # 3
- 2\textsuperscript{nd} February, 2019  
  Annual Banquet

Please send articles, poems, stories, recipes etc. to be included in our next newsletter, due out by the end of the year, to communications@meant.org.

\textit{Manjula Naganathan}  
Communications Director  
MEANT Board of Directors, 2018