**Data Conversations: Taking a DA Hub Approach to Solving Analytics Challenges**

**Alternate: Candid Insights About How to Make Data Work in Companies**

**The Importance of Community**

Leadership can be a lonely place. Many analytics leaders find their day to day very isolating. This book brings together a community of analytics leaders looking to share experiences, good and bad, with the aim of helping each other become better at what they do.

Inspired by conversations at the [Digital Analytics Hub](https://www.digitalanalyticshub.com/), you will experience open and honest accounts of how these leaders have gone about solving analytics challenges, many of them common to you.

The DA Hub aims to empower analytics leaders with the knowledge and confidence to address their most pressing challenges. This book aspires to do the same.

Each chapter of the book will be dedicated to a different leader. The first chapter features Gary Angel, CEO of Digital Mortar. Gary is one of the leading digital measurement experts of the world and the author of the [Measuring the Digital World](https://measuringthedigitalworld.com/tag/gary-angel/) book published in 2016. He’s a frequent speaker at industry events and took the time to reflect on the conversations he had with analytics leaders at the DA Hub on exploring what they might do with their analytics teams that might be “dangerous, interesting or transformative.”

We hope this book inspires you to have more data and analytics conversations with your peers. Discussion topics are endless. Gary has kicked several off in his post below. We would love to hear your point of view on what he has shared. We would also like to hear what you think we should be having a conversation about next!

**Kicking Back and Thinking About the Big Stuff**

**By Gary Angel**

I’ve been doing and facilitating conversations at the Hub and its X Change predecessor for many years. And one thing I’ve learned is that it’s useless to try and predict which groups are going to take off and which aren’t. It’s a matter of topic, timing and group and it’s as delicate and fundamentally chaotic as butterfly wings and global weather.

For 2019’s Hub, I was facilitating two very traditional conversations (Predictive Modelling and ML Process) and one wildcard topic unlike anything I’d ever tried before. I billed this wildcard conversation as being about “the big things – the things you’ve always wanted to try but never have” and labelled it the Kick-back and Talk About the Big Stuff conversation.

What I was kind of hoping for was to hear a bunch of off-topic analytics ideas – a kind of dog’s breakfast of ideas you might hear trotted out at VC pitch sessions. But that isn’t what emerged from the discussion (as fun as that would have been). As we went around the table and people threw out topics, it was clear that people were expecting a future-of discussion around the issues that dominate enterprise analytics.

Here are the half-dozen topics that got suggested by multiple participants:

* Data Governance 2.0
* Future of Privacy
* What’s Needed in the Next Generation of Analytics Tools
* Bridging the Offline and Online worlds
* The role of the traditional Analyst with growth of ML
* Dynamic Pricing

As big topics for the future go, those range from the obvious (Privacy/Tools to the unexpected – Dynamic Pricing). Most of them are topics that get discussed in one conversation or another at the Hub, but with our eyes firmly fixed not on current practice but on what’s coming, here’s a little flavor of the conversation around each topic.

## Data Governance 2.0

People may assume that because I find data governance somewhat boring that I don’t realize how important it is. That’s not true. I wouldn’t want to spend my professional life doing data governance any more than I would growing food or being a police officer. It’s a strange fact of life that most of the really important jobs in the world are a bit boring. You simply can’t do real analytics without data governance – not in complex enterprise environments.

But is there a future-tense to data governance or is it just the same old slog through fundamentals? Our discussion laid out a quick framework around enterprise data governance, identifying three different areas of concern:

* Validating that the numbers people are seeing are from the right (and sole) source of truth and haven’t been modified along their journey (as happens in most Excel-based journeys)
* Assessing and labeling data with appropriate classifications so that people can use them appropriately (from finance grade to directional)
* Understanding and improving the actual accuracy of the data.

I often find it surprising how little data governance effort goes into this third item. It’s appalling how poor, for example, most enterprise voice of the customer (VoC) data is. But as long as it’s from a sole source of truth, most data governance organizations aren’t going to worry about the underlying sampling methodology. That’s fine, I guess. Provided you don’t mind your Executives and Line Managers making critical decisions off of fundamentally flawed data.

But the most interesting 2.0 idea in the conversation was the potential for using Blockchain to protect the integrity of data and reports throughout the enterprise. Blockchain is a way to guarantee the provenance and authenticity of some virtual data points. We think of it as having to do with things like payments but it’s not limited to that. Could Blockchain be used to ensure that key reports or even individual data items were preserved as per their original source and trace back to any modifications by owner and step?

Probably.

I have no idea if that’s practical in the real-world and I’m pretty sure that current gen enterprise systems provide zero support for this. Perhaps the overhead is too high. Or maybe this is the killer app for blockchain that hundreds of VC’s and startups have been looking for!

## Future of Data Privacy

I wouldn’t classify data privacy as tedious (the way I might label data governance), but I do often find it deeply annoying. As with data governance, that doesn’t mean it isn’t vital and necessary. When you get into the world of regulatory policy, the rules of common sense and good writing are largely suspended. It gives me a headache to read GDPR and try to figure out what the heck it entails for my business. But at least half of the reason for that headache is that I know I can’t ignore this stuff. Privacy matters and privacy regulation matters (in some ways even more).

In our discussion, there was a pretty sharp divide over where big-picture privacy is headed. The common-sense view of most practitioners is that data ownership will increasingly be vested in the consumer who will often be recompensed for permitting data visibility and usage and that we’ll live in an increasingly regulated data privacy environment.

But there was also a sense that this view is somewhat generational. Younger cohorts don’t seem terribly disturbed by online privacy and there was real debate about whether or not online privacy in 2040 would be a thing. I see no reason why both views can’t be true. It’s not at all unlikely that people will care very little about privacy even as government regulations become ever more onerous and burdensome!

The most tantalizing new privacy initiative that got mentioned? Tim Berners-Lee’s project for decentralizing privacy – Solid. Is it half-baked? I’m not even sure it’s in the oven yet. But if you’re thinking about the future of privacy, it might be worth a look.

This discussion also dipped into the need for what was termed analytics ethics. Careful, thoughtful, quasi-academic philosophical ethics has become an important part of bio-medicine (and medicine in general). No similar effort has been devoted to analytics or even online (though I will recommend Gloria Origgi’s Reputation – What it is and Why it Matters if you want an interesting philosophical account of online reputation).

One particularly subtle and interesting point (which forms a good example of the need) was the extent to which making privacy a consumer asset would create yet another way in which some privileged class of consumers is advantaged and everyone else has to sacrifice their privacy to get the discounts they need. Public policy is hard – with the unseen and unsuspected implications of a policy often dwarfing its intended effects – and there is no substitute for disciplined thought about both consequences and rights.

## Bridging the Online and Offline Worlds

I swear I wasn’t the one who brought this topic up – even though it’s currently the focus of my life. Maybe just because of that, it wasn’t what I had in mind at all for a talk about the future! For the enterprise with both digital and physical presence, it’s critically important and VERY hard right now.

Since virtually everything I write about relates to this topic, I’m going to short shrift it here. But one of the key take-aways from this conversation for folks in digital is a basic knowledge of Google’s push into this space. GA now has metrics you can enable to track store visits. And Google’s preternatural reach lets them track more people in physical space than anyone else. If you need accurate in-store journey measurement, queue management or display interaction, then the stuff we do at [Digital Mortar](https://digitalmortar.com/) is what you need. But if you’re looking, as so many digital folks are, for a form of attribution – then Google is absolutely the best place to start.

## The Role of the Traditional Analyst and Machine Learning (ML)

Has the machine got you beat? Most of the folks at the Hub aren’t down in the weeds analysts – though most have been there earlier in their careers. But just because of that I think their opinion matters even more. These are the people hiring analysts onto their teams, and no one…NO ONE…thinks the role of the traditional analyst is going away.

What is going away (though it will likely be maddeningly slow) is the analyst as report annotator highlighting numbers that have changed. If that’s what you do, then you’d better be thinking about adding skills or changing careers because the machine really does do that better. But ML creates plenty of opportunity for analysts too – and the group was consistently optimistic about this. From helping the organization target applications of ML, deciding what data to access and make available to ML, explaining ML outputs to stakeholders, and translating ML findings into business useful actions or recommendations, there’s no shortage of ML-related tasks that DON’T require you to be a data scientist or an ML jockey.

From my perspective, the level of mystical expectation around ML is pretty laughable. It’s not impossible that advances in DRL or AI will create truly general machine learners that can do these kinds of tasks. When and if that happens, 99% of all human jobs will be obsolete. So at least you’ll be part of a crowd! Until then, ML as we have it is just another set of statistical tools that it’s nice for an analyst to know but which are most definitely not able to replace anybody.

## What’s Needed in the Next Generation of Analytics Tools

Craft and tools are inextricably linked – and there is no craft where the craftsmen don’t both love and hate their tools. Love because tools are the instruments of art and hate because no tool ever fully reflects the vision in minds of how to accomplish a task. But when it comes to the next gen of tools, our discussion focused a lot on more foundational aspects of data management and movement - a surprise for a next-gen conversation.

Two massive enterprise analytics trends are putting a premium on these foundational elements – a move toward cross-silo analytics and the dramatic growth of cloud. The first trend is forcing analysts to deal with ever broader data catalogs many of which are outside of our immediate expertise. So effective data cataloging and metadata management become a critical part of enterprise analytics. Meanwhile, the move to cloud has left most organizations with an inevitable hybrid solution.

There is tons of data in the cloud. But there’s still tons of data outside the cloud. And data quantities are growing to the point where lake and movement strategies just aren’t reasonable. The Hub is determinedly non-salesy, but there’s nothing that says I can’t toot someone else’s horn. My old friend Bob Page (now CPO at Datameer) was there and his new product direction is very much in the direction of a comprehensive analytics virtualization solution that lets you leave your data in place but access it seamlessly in or out of the cloud. That’s an attractive vision for anyone looking to find ways to meet the core data challenges in large-scale enterprise analytics.

## Dynamic Pricing

I don’t believe that there are many areas of analytics that are potentially transformative to the enterprise as dynamic pricing. Price is the single most powerful lever we have over sales. But we are often hamstrung in our ability to adjust price rapidly enough to accurately reflect supply and demand. Where industries have been able to do this (airlines, hotels, online auctions, secondary ticket markets) the results have been transformative. If you can find a way to bring dynamic pricing to a niche, you have a huge competitive advantage over static pricers. And from a professional standpoint, dynamic pricing is nothing but analytics.

Our discussion tackled obvious areas for dynamic pricing (any business with perishable inventory) and some non-obvious use-cases. I happen to be a firm believer that retailers should use dynamic pricing to manage inventory (raising the price, for example, on a popular jacket before it sells out in the store) and this idea triggered a very lively discussion on the implications. Of particular concern was the impact on customer satisfaction and brand perception as well the potential for unequal treatment of customers. But pricing on inventory is clearly non-discriminatory. You’re not targeting a class of customers or even any specific customer. In fact, stores engage in inventory-based sales all the time and I’ve never heard anyone complain about that! What they often don’t do is raise prices appropriately to manage that same inventory (and yes – I’m sure people will complain about that though it doesn’t seem to trouble airlines much).

Whatever you think of dynamic pricing in retail, if you live in a vertical that doesn’t price dynamically, you really should take a moment and think about whether there is an opportunity to change that. The technologies exist to make dynamic pricing possible and if our discussion suggested anything, it’s that there are still plenty of opportunities to find new areas of application.

Capturing a good conversation in prose is akin, for me at least, to capturing a waterfall or Summit on my camera’s phone. I’m no Jane Austen or Saul Bellow. And the joy of the Hub format when it works is hard to represent. Nor does every conversation there sparkle or inform. But when they do, it’s hard to beat. This laid-back exploration of the future, which I entered with so little expectation, proved as enjoyable a group discussion as I’ve had in many years.

Thanks to one and all who participated!