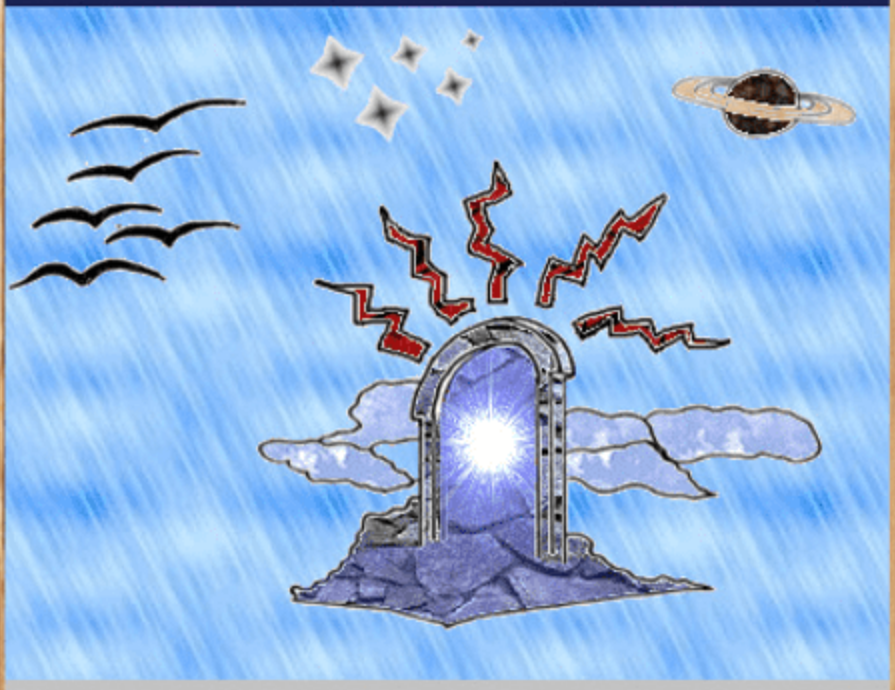
Unconventional Wisdom Series

Cool Database Tip about Claims and EMR



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Problem: Say you want to compute market share by line of therapy. You like claims data because of the big N but you know claims do not indicate when a line stops and another starts. Business rules, you already know, are the way to go. But how reliable are the rules? Really? With all due respect, what if the wisdom of our resident expert were not infinite? What if the team of experts we go to is not quite the Delphi Oracle and, as unlikely as this may sound, were to fall prey to group think? If the business rules are not spot on, does that mean our conclusions may be off? You shiver at the possibility, and your right. Also, what if the rules were grossly incomplete, meaning they stay mute for a significant portion of patients for whom we need an opinion? What to do?

Solution: We have good news for you. Thanks to the EMR, you are no longer have to have blind faith in your experts, since you are now able to evaluate the rules they propose. Trust but verify, indeed. That's right, you'll be able to say two things about the rules: (1) how relevant they are - by the way, rules that rarely trigger are irrelevant and can be tossed out, and (2) how accurate they are - when a rule says something, it better not say something stupid - that can be captured by the false positive rate. The EMR is like a teacher in that it has the answer. We run the rule and if the conclusion is at odds with what the EMR is saying, unless the EMR is wrong, we can immediately conclude the rule is not up to snuff.

The other cool thing with the "EMR as teacher" approach is that it offers a solution to a related problem, which is bound to happen even if you or your experts are extremely creative. It is that sometimes we are stumped and cannot think of any good rules for the job. The EMR can once more come to the rescue. It is indeed a wonderful sandbox for discovering rules. In essence, by comparing patients that have a certain property (e.g., in line 2) with patients that lack that property (e.g., in line 1 or 3), one can develop a fair amount of tentative rules. Such candidate rules may be submitted to experts for clinical merit, and if they pass the test, may then be evaluated just as described above. With such an approach you are on your way to a complete set of sound rules.

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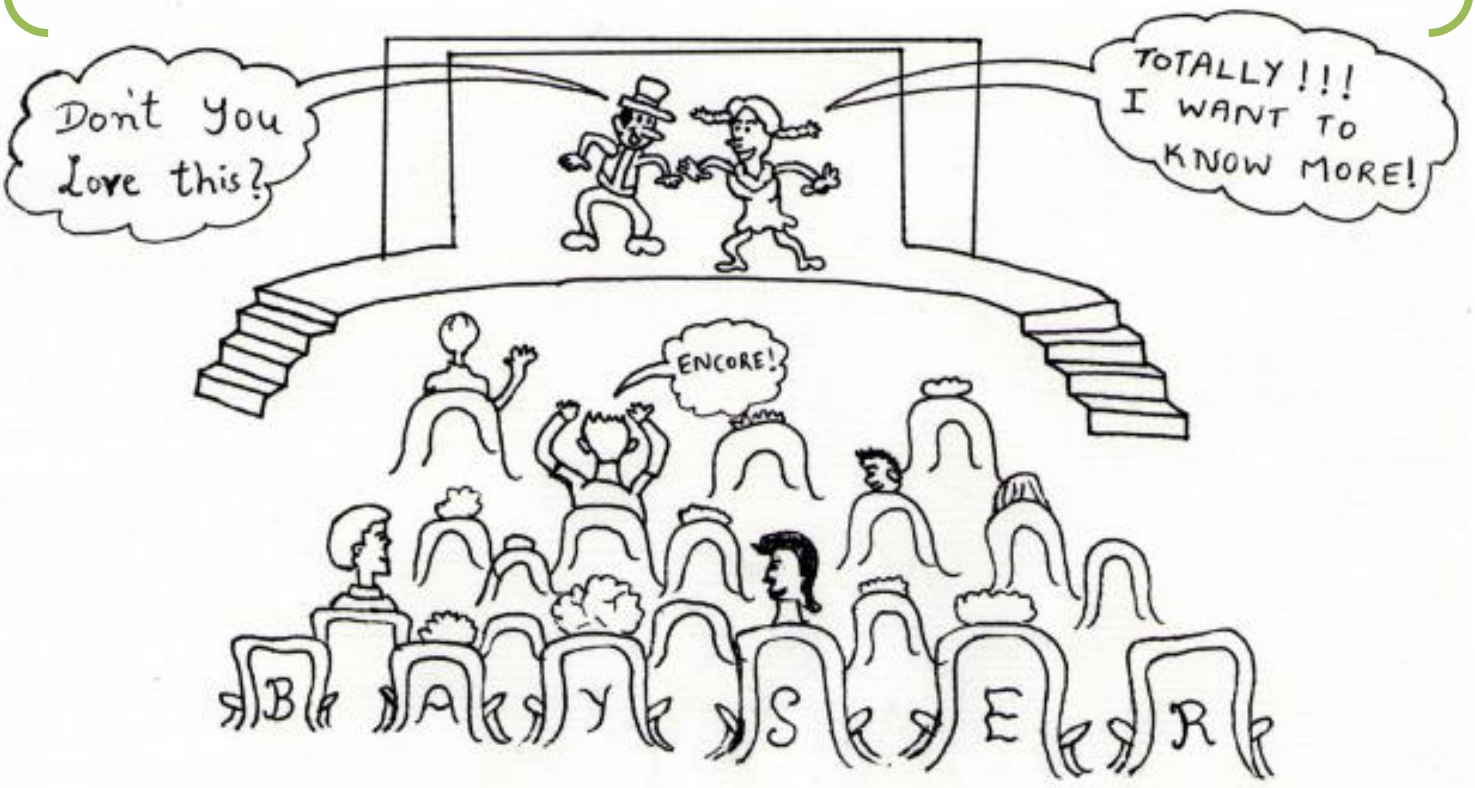
Founder & President

Jean-Patrick Tsang is the Founder and President of Bayser, a Chicago-based consulting firm dedicated to pharmaceuticals sales and marketing. JP has worked on 250+ projects to date including ROI optimization, data strategy, and study design to mention just these. JP publishes and gives talks on a regular basis and runs one-day classes on various subjects related to data and analysis.

In a previous life, JP deployed Artificial Intelligence to automate the design of payloads for satellites and was the adviser of two PhD Students. JP holds a Ph.D. in Artificial Intelligence from Grenoble University and an MBA from INSEAD in France. He was also the Recipient of the PMSA Lifetime Achievement Award in 2015. He can be reached at (847) 920-1000 or bayser@bayser.com.



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