

BI Radio

Episode 16 – Risky Business

00:00:00

Station ID: This is BI Radio.

00:00:05

Montage:

- Sociologists talk about modern western societies as what they call risk society. How do we decide what to worry about and what not to worry about?
- We've just started a project on predictive analytics.
- Another innovative approach though was automating risk reporting.
- What we're trying to do out of that is to build a predictive model to identify those students who are at risk.
- Can we predict if someone is going to quit?

00:00:35

Ken Seeley: Hi there and welcome to BI Radio. I'm Ken Seeley. On the show today: Risky Business. We look at the dangers of doing business in a volatile market and the data-driven decisions that keep you out of harm's way. We discover a new application to help banks manage credit risk and we hear about the innovative approaches in healthcare and education to identify patients and students at risk. But first up: what are you worried about? Kelsey Howarth learns from journalist and author Dan Gardner how we misinterpret risk and despite what you hear we're safer than we think.

00:01:12

Kelsey Howarth: Hi, I'm Kelsey Howarth. We're the safest and healthiest humans who ever lived but we sure don't act like it. Why are we so afraid? In this segment you'll listen in as I speak with Dan Gardner. Gardner is the author of Risk, The Science and Politics of Fear and a columnist for the Ottawa Citizen, specializing in criminal justice and other investigative issues. Hi Dan, thank you very much for joining us.

Dan Gardner: Well thanks for calling.

Kelsey Howarth: In your book, Risk, The Science and Politics of Fear you state that we're the safest and healthiest people in history yet we live in a culture of fear. Why?

Dan Gardner: Well that's the \$64,000 question and it's pretty extraordinary isn't it when you stop and think about the advances that have been made in health and safety over the last 100 years and sociologists talk about modern western societies as what they call risk societies, meaning that we are increasingly preoccupied with threats to health and safety. This is a strange paradox. My argument basically involved three elements. One is the media. I'm a journalist and I know the media, I love what the media do in some cases, but I also acknowledge that we do some things which are not helpful at all in understanding risk. So the media has to bear some responsibility. Then there's fear marketers. There are individuals and organizations; a long, long list of individuals and organizations who profit by the promotion of fear. And then the third factor and the most fundamental is psychology; it's how our brain works, how we perceive things, how we make decisions. And it's when you connect these three factors, psychology, media, fear marketers and the influence of each on the other that you begin to realize why it is that our risk perceptions can be so completely out of alignment with reality.

Kelsey Howarth: You write about our two minds, intuition, or gut instinct, and reason. Can you share the characteristics of these two minds?

Dan Gardner: Yeah, if you ask a cognitive psychologist, tell me about thinking; how do people make decisions, how do we decide what to worry about and what not to worry about, they'll start with this model of two minds. We have a conscious mind; that's the mind that's having this conversation now or listening to this conversation now. And the conscious mind tends to think that it's in charge because it's only aware of itself by definition. Well that's a cognitive illusion. In fact there's a whole lot that's

happening in our brains that's happening beneath the level of consciousness. That's the unconscious mind and they are constantly working together influencing one another in very complicated and subtle ways. The great feature of the unconscious mind is its speed. It can deliver a judgment to you instantaneously. These are the famous snap judgments. You just suddenly have a sense that something is true and if I ask you why you may not be able to articulate why; you just have a sense that it's true. And we experience those conclusions in the form of intuitions, hunches, emotions; you know, that's very useful. Bear in mind throughout our evolutionary history, we can even say that our species has survived as a result of it. Ideally what should happen is the unconscious mind delivers an instantaneous snap judgment and then the conscious mind comes and looks at it and says hmm, does this make sense, does this really fit the evidence, is this a rational conclusion? And then at the end of this process you should have your final decision. And if you go through those steps it will probably be a pretty good decision. But we typically don't go through those two steps. What happens is when we have a strong hunch that something is true we go with our gut. That's true of most folks and that is where we get into big trouble.

Kelsey Howarth: You've explained how these two sides of our brain aren't working well together. They're not really equipped for the information age are they?

Dan Gardner: The genus homo has existed for about two million years; our species has existed for about 200,000 years. And in virtually all of that time we lived as little bands of hunter gatherers eking out survival on the plains of Africa. That is human history. It's only quite recent that the world began to change for humans. Well in evolutionary terms if you look at humans as a species you realize that the environment which we have almost always lived in is the old Stone Age and the pressures of that environment shaped our brain. That's where our brain evolved. And it's that mismatch between our Stone Age brain and the information age, the environment in which we live, that can cause things to go terribly, terribly wrong. You understand that perfectly well but the important thing is that your unconscious mind delivers snap judgments. Well the question is how does it deliver snap judgments? How come it's so much faster than the conscious mind? And the reason why is that it doesn't survey all the available information and it doesn't think about it logically; that's what the conscious mind does. For instance we don't allow children to play unsupervised outside as children have done since the dawn of time. So what are they doing; they're staying inside, they're playing video games, they're eating junk food, they're getting fat and they're running the risk of juvenile diabetes which is a real risk. So there are real consequences to getting risk wrong.

Kelsey Howarth: You write about some concerns that we're just letting go by unnoticed. Can you share a few of these?

Dan Gardner: Well go and take a look at the list of things that actually kill people today in modern societies and what you'll find is you'll find heart disease and you'll find diabetes and so on. And what all of these things have in common is they're heavily involved with lifestyle. And these are the things that kill people by the millions. These causes of death actually get less attention in the media, far less attention than is warranted by the numbers of people who are killed by them. Well you know why aren't they aware that the media don't report it? The media don't report asthma deaths, but they do report every tornado death because it's dramatic and vivid and so on. Now if you take that media misreporting and then you run it through the psychology mechanisms I discussed then you understand why do people judge the risk of death by tornado to be so much greater than death by asthma when in reality it's quite the reverse?

Kelsey Howarth: The final chapter of your book is entitled There's Never Been a Better Time to be Alive. Why so?

Dan Gardner: Life expectancy; life expectancy in society down through history has ranged between 30 years and 50 years. Today in the modern west you can expect to live to be 80. The World Health Organization did a fascinating report in which they looked at a number of factors which can affect life expectancy and child mortality and they devised three scenarios looking into the future 30 years. There was a baseline scenario, an optimistic scenario and a pessimistic scenario. And what they found is that both child mortality falls and life expectancy increases in every region of the world under all three scenarios. You know I can't emphasize strongly enough how historically unusual this is and how profoundly grateful we should be that we...we are at risk of course; we have serious dangers, there are things that we should worry about certainly. But at the same time we should realize how much lower the risks we face are today and how much greater our life expectancy is, how much safer our children are and we should be profoundly grateful for that.

Kelsey Howarth: Dan thank you so much for joining us.

Dan Gardner: Thank you.

00:09:33

Kelsey Howarth: For more information on how you can get speakers like Dan Gardner at your next event please visit the Speakers' Spotlight website at www.speakers.ca

00:09:46

Advertisement: Got perspective? Cognos Performance Perspectives is the Cognos e-newsletter; for business intelligence, enterprise planning and performance management. It's your source for exclusive interviews, insights and opinion on industry trends. It's a perspective unique to Cognos, one we think you'll enjoy. Get the newsletter and get a new perspective. Subscribe now at cognos.com/newsletter.

00:10:18

Station ID: Interviews, insights and opinions on performance management, you're listening to BI Radio.

00:10:23

Lisa LaRochelle: Hi, I'm Lisa LaRochelle. Any conversation about risk these days naturally leads into discussions of financial markets. With significant bailouts and double digit stock market declines around the world, banks are totally rethinking their risk management, customer profitability and data transparency strategies. In this segment I'm joined by Leo Tucker, a Cognos consultant who has 17 years of professional experience spanning technology marketing, consulting and financial services. Leo has held senior roles with leading companies such as IBM, Cognos, S1, Adjoined Consulting and Fifth Third Bank. His consulting clients have included some of the world's most innovative financial services technology and services companies. Here we discuss how banks are tackling a challenging market and how performance management software can help. Good morning Leo.

Leo Tucker: Good morning Lisa.

Lisa LaRochelle: Industry experts are stating that the banking and insurance financial crisis of 2008 has caused the worst economic environment since the depression in the US. What tone is in the boardrooms of banks and insurance companies? How are CEO's of these companies changing their thinking to adjust to this less than ideal marketplace?

Leo Tucker: Certainly in the executive ranks the tone is somewhere on a continuum between stubbornness and panic. Many banks are actually looking at the prospect of bank failure which we really haven't seen in the country on a wide scale in decades. Of course the prospect of being bailed out by the government helps, but until all the details are known that's still up in the air. It's important though to mention the difference between banks in situations like this. Some banks are in real trouble, especially those that dabbled in collateral debt obligations, or really have let their underwriting standards slip. But a large number of banks, especially in the small and mid tier are not being hit as hard if they maintained tighter lending standards. In fact many smaller banks see this as a time of opportunity to steal share from larger competitors. A CEO, CRO's and chief credit or lending officers are taking a close look at their credit and underwriting policies as a result of the crisis. Tightening policies is job one, so that's the first thing they're working on. Combined with the simple fact that many banks are having major capitalization problems there's very little credit available in the marketplace which of course is the ultimate impetus for the bailouts across the world. What I think banks need to be careful of, if you play this chess match forward a couple of steps, is allowing the pendulum to swing so far to tighter credit that the banks fail to hit their growth targets. They need to remember the revenue side of the equation as well. Tighter credit obviously impacts bank's revenue potential but the growth of the greater economy as well.

Lisa LaRochelle: In terms of risk what types of risk are the most critical to focus on and what types of metrics are going to be increasingly important for banks and insurance companies?

Leo Tucker: Well credit risk is the obvious answer here. Banks must focus on a couple of key areas right now. First they must concentrate on delinquencies and collection efforts. Delinquency metrics are obviously things like 30, 60, and 90 day late loans. On the collection side they want to look at metrics that indicate how the percentage of outstanding funds are being collected. Banks have collectors; they need to

have how well these collectors are doing. Second, they must carefully monitor new loan originations to ensure that the situation improves. Metrics in this case include things such as average credit score and loan to value ratios. Operations risk is also quite important. Reducing fraud at a time when every dollar counts for banks, can help to offset some of the credit losses. Also some of the very issues with credit risks such as delinquencies may be solved with operational improvements. For instance by monitoring the average time spent in underwriting per loan the bank may find that its underwriters are not spending the time needed to make the best lending decisions. The other less obvious answer is reputations risk. Reputation risk can come in many forms. The last thing a customer needs is another reason to leave the bank so banks should be very wary of metrics such as negative press mentions and lawsuits.

Lisa LaRochelle: And what level of maturity are most banks at in terms of their ability to manage risk?

Leo Tucker: Most banks can measure credit risk today with point tools. Where they often fail is seeing the full view of credit risk across business units or legal entities, products or geographies. Because so many banks have grown via acquisition they often have one tool for one product or geography and different tools for others. They need to standardize on one process and one tool to more effectively manage credit risk. Other risk types such as operational risk are managed well in some cases and not so well in others. There's a huge disparity in this area. There are tools for fraud and money laundering that are pretty good. There are tools for monitoring systems and still others for monitoring processes. Again a single view across all these systems would be hugely beneficial for most banks.

Lisa LaRochelle: What have been some of the barriers to comprehensive risk management?

Leo Tucker: It almost always comes back to a mess of source systems. The effort involved in providing access to all data and then rationalizing that data and making sense of it can be daunting. But with the progress made in warehousing and frankly in using business intelligence to sit on top of multiple systems this issue has been helped significantly. Once banks can actually see a comprehensive picture of the risk they can begin to truly manage it.

Lisa LaRochelle: Banks and insurance companies have traditionally been early adopters of performance management software. Can you give us a few examples of how innovative banks are using BI and planning to give faster, more accurate answers?

Leo Tucker: Sure. I think the most innovative banks have known for a long time that getting a single view of risk is vital. Even a single view of just credit risk across all businesses, geographies and products is a great first step since credit risk makes up so much of the bank's overall risk. Another innovative approach though is automating risk reporting, allowing the quantitative folks at the bank to spend their time analyzing information rather than putting it into spreadsheets. Finally the most compelling strategy is to close the performance loop by taking the information learned from business intelligence and plugging it back into the financial planning software. This allows the bank to forecast risk more and more accurately.

Lisa LaRochelle: And how is Cognos aligning its product strategy to assist them?

Leo Tucker: Cognos has had the performance management tools like business intelligence financial planning for some time. With the IBM acquisition Cognos is now integrating its direction in the risk area with IBM's financial integrative risk management strategy. As part of this what Cognos has embarked upon most recently is a move to an analytic application specific to risk management. The first application which is credit risk performance actually provides the target data model and a set of between 70 and 100 dashboards and reports in a pre-built solution. This allows banks to get their credit risk reporting fully functional and less time than it would otherwise take them and it provides industry standard key risk indicators out of the box.

Lisa LaRochelle: So Leo tell me a little bit more about the credit risk application.

Leo Tucker: I'd be happy to. The credit risk application actually has five functional areas that we're covering. One is around loan originations so that the user can understand the credit quality of the loan they are originating now. The second is around front-end performance which is primarily delinquencies. So again we can see early on whether we have loans that are in jeopardy of not paying. Third is backend performance which takes the delinquency argument a step further. It's where we start looking into charge offs and trying to understand whether those charge offs came as a result of foreclosures, repossessions or bankruptcies, that type of thing. Finally, the other two parts, one is profitability and financial. So all these delinquencies and charge offs ultimately have an effect on the bank's bottom line. What we want to do is

make sure we're monitoring the key profitability indicators along the way that risk is affecting. So we measure that within the profitability and financial portion. And then finally the fifth area is around Basel II reporting. This is not meant to be a compliance reporting solution; it's a management reporting solution. But that said we do want to monitor the key Basel metrics such as probability of default, loss given to fault, earnings of default, those types of things. So the value of the credit risk application is that banks are able to monitor credit risk from the beginning of the cycle when they're originating loans to the end of the cycle, which hopefully is when a loan is paid off or in a worst case when it's charged off. Along the way they're going to be able to reduce delinquencies and hopefully reduce charge offs, which is going to make a substantial impact to the bank's bottom line.

Lisa LaRoche: Thank you very much for joining us Leo.

Leo Tucker: Thanks for having me Lisa.

00:19:14

Lisa LaRoche: For more information on IBM Cognos solutions for banking please visit cognos.com/banking.

00:19:23

Advertisement: Want better visibility into your bank's performance? Cognos is the Hubble telescope for banking's black holes. With 17 years of proven performance management experience like our performance management framework that shows you the sweet spots of information that truly make a difference to your performance, or our IBM Cognos performance blueprints that give you a head start to better decisions in key areas like customer profitability and risk. Get better visibility into your performance; visit cognos.com/telescope today. That's cognos.com/telescope.

00:19:51

Station ID: Insights on performance management from the people who shape the industry.

00:20:02

Delaney Turner: Hi, I'm Delaney Turner with Cognos, an IBM company. Risk management isn't just for finance anymore; it extends beyond that department and into diverse industries. For example, higher education and healthcare. In this segment we'll hear from Jeff Guevin and Eric Place of Martin's Point Healthcare about performance management and patients at risk.

00:20:40

Kelsey Howarth: Could one of you tell us a little bit about Martin's Point?

Jeff Guevin: Sure. Martin's Point Healthcare is a small not for profit healthcare organization located, headquartered in Portland Maine and we've got roughly 450 or so employees located throughout the four states in New England, so New York, New Hampshire, Vermont, Maine. And we are unique in a way that we are healthcare provider of service but we're also a payer. So we have health insurance programs and then we also own primary care practice sites. And also we own three pharmacies. So we've got a couple of onsite pharmacies and a mail order pharmacy. So we really got our hands in all kinds of healthcare data.

Eric Place: And that creates a great deal of data when you think about what Jeff said, the density of data we have. We have claims from the insurance side; so all of the things that are done to people. We have the charges from the practice side, so what the docs are doing on their end. We have pharmacy data; we have electronic medical record data. There's a vast amount of data that we have for a small organization.

Kelsey Howarth: Oftentimes, BI and performance management, the end goal is deeper insight into customers, better customer care. From what you're doing here, are customers experiencing the benefits of this implementation?

Eric Place: I would say definitely as far as customer care and healthcare, meaning are you keeping people healthy, are you meeting their needs. And with the amount of information that we can pull of their

EHR and claims data our customer care goes to the point of here's everybody who is diabetic and here's their last lab value. Or they need to be seen once every year; have they been seen yet? And so we have the reports where we can look at by doc, here's all your people that are diabetic. Are they in control or out of control with their blood sugar and that might indicate that we need to reach out to that person to talk to them. So customer care and healthcare takes on a whole different meaning because you're really talking about caring for the health of that member or that patient.

Kelsey Howarth: And you can look at those sort of risk factors and really bring it together.

Eric Place: Exactly right.

Kelsey Howarth: What departments use Cognos?

Eric Place: Let's see planning departments obviously, our practice management; the people who run our practices, they utilize it. Our health management department which are the people that identify people who are either at risk for certain diseases or case managers that are calling to make calls on people.

Jeff Guevin: Also our enrolment department. So when looking at okay where...how does our enrolment break down by gender, by age, so those kinds of information.

Eric Place: Pharmacy.

Jeff Guevin: Pharmacy department. Executive management team, with the scorecards on their desktops. So it's really; I mean if you think about it 450 employees we have probably 65 to 70 Cognos users all the way from the frontline worker all the way up to the CEO. So it kind of touches all departments. The only one that we haven't gotten into yet is human resources which is part of our...we do have a BI strategic plan for the next five years that we just created a few months ago. And on that plan is to get human resources involved. They want to know turnaround time, they want to know can we predict if someone is going to quit. So it's one of our goals upcoming in the next five years is to get HR, human resources involved.

00:24:23

Delaney Turner: In this segment Chris Grange of the University of Wollongong in Australia talks to Kelsey Howarth about business intelligence and students at risk.

00:24:33

Kelsey Howarth: What were some of the central issues that the university faced prior to Cognos?

Chris Grange: The same pains that everyone else talks about; the problems with not having a single version of the truth; the problem with spending much of your time at management meetings arguing over whose numbers are right and whose numbers are wrong; the problems with deploying information; the problems with comparing information across different pieces of data. For instance we have at least 30 different IT applications on which we source our information. There's a student system and a research system and a finance system and a timetabling system and a library system and a HR system and a facilities management system, and the list goes on and on. And when you're trying to actually distil data for decision making from across those different systems it becomes really difficult to do.

Kelsey Howarth: You've tackled a lot of challenges for the university but now you're moving into more predictive analytics? Is that correct?

Chris Grange: Yeah we've just started a project on predictive analytics. Let me explain to you what it's about. How many students don't make it through first year or make it first year and don't make through second or third year? We're developing a data set on that and standardizing the information on that. We already have a very strong portfolio of information all standardized and reported through our BI implementation on the demographics of our student population and also on their admission requirements and on the grades that they achieve as they progress. So what we're doing over the next 12 months is we're going to standardize the attrition data and deliver it through BI and then we're going to run an extensive set of correlation analysis to try to look for trends between those students who get into academic difficulty in terms of their performance, match it against the admission information, against the demographic information and against their performance in sort of prior subjects. And so what we're trying

to do out of that is to build a predictive model to identify those students who are at risk of not progressing, of dropping out, of going elsewhere, those kinds of things. Now if we can do that, and there are a range of ethical and policy issues that we're going to have to consider along the way of doing that, but we would be able to then start to build potentially strategies of one kind or another; intervention, assistance, closer monitoring, to try and help those students who might be at risk. So at this stage we've decided to do the project. It will take us 12 months to do; 6 months to finalize the attrition set and then 6 months to do the first cut of the analysis. So in 12 months time we should be able to take stock of what it's found; whether there's any valid data in it; whether there's any patterns that might be usable to us. So it's a really exciting sort of project from our point of view. It's got a lot of challenges and it's got a lot of question marks over it, but it's an area that would have real value, not just to us as a university but to our students as well.

Kelsey Howarth: Yeah.

00:28:27

Delaney Turner: Thanks for listening. For more information visit cognos.com/risk.

00:28:32

Advertisement: Feeling the heat? Go from the hot seat to the driver's seat with IBM Cognos 8v4, the latest release of the IBM Cognos performance management platform. Inform, engage and align your business users with new dynamic dashboards, dimension management and many other innovations. Get into the driver's seat today. Visit cognos.com/driversseat. That's cognos.com/driversseat.

Ken Seeley: Well that's a wrap. I'd like to thank our guests today; author Dan Gardner; from Martin's Point Healthcare Jeff Guevin and Eric Place; from the university of Wollongong, Chris Grange, and financial services consultant Leo Tucker. A note of thanks as well to our segment producers Kelsey Howarth and Lisa LaRochelle; to our writer Delaney Turner and finally to our head producer and audio engineer Derek Schraner. A reminder to check us out online at radiocognos.com where you can listen to previous shows, download individual segments and view the transcript of each broadcast. If you care to comment about anything you hear on the show email us at biradio@ca.ibm.com. Thanks for listening. I'm Ken Seeley. Take care; we'll see you in about 6 weeks.

00:29:57

END OF RECORDING