

《《经济学人》双语:完全依据数据做决策有什么风险?》

Managers are better equipped than ever to make good decisions. They are more aware that human judgment is fallible. They have oodles of data about their customers and products. They can use artificial intelligence (AI) to analyse, summarise and synthesise information with unprecedented speed. But as the pendulum swings inexorably away from gut instinct and towards data-based decisions, firms need to be alive to a different set of dangers.

管理者比以往任何时候都更有能力做出正确的决定。 他们更加意识到人类的判断可能是错的。 他们拥有大量有关客户和产品的数据。 他们可以使用人工智能(AI)以前所未有的速度分析、总结和合成信息。 但随着钟摆无情地从直觉转向基于数据的决策,公司需要意识到一系列不同的危险。



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In a recent paper Linda Chang of the Toyota Research Institute and her co-authors identify a cognitive bias that they call "quantification fixation". The risk of depending on data alone to make decisions is familiar: it is sometimes referred to as the McNamara fallacy, after the emphasis that an American secretary of defence put on misleading



quantitative measures in assessing the Vietnam war. But Ms Chang and her co-authors help explain why people put disproportionate weight on numbers.

丰田研究所的琳达·张和她的合著者在最近的一篇论文中发现了一种认知偏见,他们称之为"量化固定"。

仅依赖数据做出决策的风险是熟悉的:有时被称为麦克纳马拉谬误, 在美国国防部长在评估越南战争时强调了误导性的量化措施之后。 但张女士和她的合著者帮助解释了为什么人们过于重视数字。

The reason seems to be that data are particularly suited to making comparisons. In one experiment, participants were asked to imagine choosing between two software engineers for a promotion. One engineer had been assessed as more likely to climb the ladder but less likely to stay at the firm; the other, by contrast, had a higher probability of retention but a lower chance of advancement. The researchers varied the way that this information was presented. They found that participants were more likely to choose on the basis of future promotion prospects when only that criterion was quantified, and to select on retention probability when that was the thing with a number attached.

原因似乎是数据特别适合进行比较。

在一项实验中,参与者被要求想象在两名软件工程师之间做出选择以获得晋升。 一位工程师被评估为更有可能晋升,但不太可能留在公司;相比之下,另一位工程师, 留任的可能性较高,但晋升的可能性较低。 研究人员改变了这些信息的呈现方式。 他 们发现,当只有这一标准被量化时,参与者更有可能根据未来的晋升前景进行选择, 而当留任率是数字化的东西时,他们更有可能根据留任率进行选择。

One answer to this bias is to quantify everything. But, as the authors point out, some things are mushier than others. A firm's culture is harder to express as a number for jobseekers than its salary levels. Data can tell an early-stage investor more about a startup's financials than a founder's resilience. Numbers allow for easy comparisons. The problem is that they do not always tell the whole story.

为何会有这种偏见?其中一个答案是量化一切。但是,正如作者指出的那样,有的事并不像其它事那样可以用数字量化。对于求职者来说,比起薪资水平,企业文化更难用数字来表达。数据可以告诉早期投资者更多地了解初创公司的财务状况,而不是创始人的韧性。数字可以轻松进行比较。 问题是数字并不总能讲述整个故事。

There are other risks, too. Humans bring the same cognitive biases to their analysis of numbers as they do to other decisions. Take confirmation bias, the propensity to interpret information as support for your point of view. In another experiment Itai Yanai of New York University and Martin Lercher of Heinrich Heine University asked computer-science undergraduates to say what general correlation they expected between wealth and happiness, before showing them a fictitious dataset of the relationship



between these two variables for 1,000 individuals. Faced with an identical graph, students who expected a positive correlation were much more likely to see one in the data. Beliefs influenced interpretation.

还存在其他风险。 人类在分析数字时会产生与其他决策相同的认知偏差。以确认偏见为例,即将信息解释为支持您观点的倾向。在另一项实验中,纽约大学的Itai Yanai和Heinrich Heine大学的Martin Lercher要求计算机科学本科生说出他们对财富和幸福之间的一般相关性,然后向他们展示1000人的这两个变量之间关系的虚拟数据集。面对相同的图表,期望正相关性的学生更有可能在数据中看到正相关性。信念影响了解释。

Plenty of people struggle with basic data literacy: consumers are less likely to participate in competitions with higher numbers of contestants, even when the odds of winning a prize are exactly the same. In a world giddy with excitement over AI models, relying on algorithms may seem like the sensible solution to this. In one more experiment, Hossein Nikpayam and Mirko Kremer of the Frankfurt School of Finance and Management and Francis de Vericourt of ESMT Berlin found that managers were unimpressed when other decision-makers ignored machine-led recommendations and exercised their own judgment. They blamed them if the outcome was bad, and did not reward them if it was good. People used to say that nobody ever got fired for buying IBM. It's not hard to imagine "nobody gets fired for following the algorithm" becoming the modern-day equivalent.

很多人都在努力学习基本的数据素养:消费者不太可能参加竞争人数较多的比赛,即使中奖的几率完全相同。 在一个对人工智能模型感到兴奋的世界里,依赖算法似乎是解决这个问题的明智解决方案。 在另一个实验中, 法兰克福金融与管理学院的侯赛因 · 尼帕亚姆和米尔科 · 克雷默以及柏林EMT的弗朗西斯 · 德 · 韦里库尔发现,当其他决策者忽视机器主导的建议并行使自己的判断时,经理们并不以为然。如果结果不好,管理者就会责怪他们,如果结果好,管理者也不会奖励他们。人们过去常说没有人因为收购IBM而被解雇。不难想象," 没有人会因为遵循算法而被解雇"成为现代的同等内容。

But there are times when humans have an advantage. Datasets reflect back the world as it is, for example, not the world as it might be. It's harder to evaluate radically new ideas by looking at existing patterns. In the early days of HBO, a pioneering TV channel, executives operated on a mixture of instinct and contrarianism to commission programmes that broke the mould: profane comedy specials, a prison drama that killed off a main character in the first episode. Other networks turned down the idea of a violent mobster in therapy; HBO did not. Relying on data might have led to more explicable decisions, but they would also have been safer.

但有时人类具有优势。

例如,数据集反映了世界的本来面目,而不是世界的可能面目。 通过查看现有模式来评估全新的想法更加困难。 在开创性电视频道HBO成立初期, 高管们凭借本能和反向主义的结合,委托制作了打破常规的节目:亵渎喜剧特别节目 ,一部监狱剧,在第一集中杀死了一名主角。

其他电视网拒绝了暴力暴徒接受治疗的想法;HBO没有。 依赖数据可能会导致更合理的决策,但它们也会更安全。

None of this is to say that instinct trumps data, or to claim that humans make better decisions than machines. Far from it. But it is a warning. Numbers promise rigour, certainty and objectivity. They have flaws, too.

这并不是说本能胜过数据,也不是说人类比机器做出更好的决策。 远非如此。 但这是一个警告。 数字承诺严格性、确定性和客观性。 他们也有缺陷。

重点词汇

make good 修复;恢复;赔偿;偿付;获得成功;出名;发迹

They have 他们有

artificial intelligence 人工智能

away from 离开

gut instinct 直觉

be alive to 活着;对…注意到

Research Institute 研究所;研究院;研究机构;科研机构;科研所

cognitive bias 认知偏差;认知偏见;认知偏误;认知偏好

depending on 取决于;依据,根据

referred to as 被称为;简称;称作