LINK

Link *is an exercise in abstraction, causality, and modeling. It is about discovering and making visible interdependencies in complex systems. The author distills what she has learned in pithy insights. It takes discipline. You won't regret reading this book.*

– Vint Cerf, Internet Pioneer

Link *is the missing link to our understanding of unintended consequences of many of our decisions and actions. This is a book for the ages, moving both technology (like AI) and human decision making to the next level. Must read.*

– V R Ferose, SVP and Head of SAP Academy for Engineering

There is an explosion today in the impacts, risks, and opportunities of many decisions by private or governmental entities intended to impact future events. Link *is about understanding these decisions and causal relationships. Societal transactions are accelerating: many more than ever are intangible, and there are substantial complexities created by newly discovered information as well as the resulting increase of global interdependencies. Surveillance capitalism, especially as enhanced by AI, is also a substantial risk today.* Link *is part of the solution: a crucial resource to understand causal chains, especially with the goal of avoiding unintended consequences of decisions involving data and technology.*

– Bill Fenwick, Partner Emeritus, Fenwick & West LLP

LINK

How Decision Intelligence Connects Data, Actions, and Outcomes for a Better World

BY

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INVESTOR IN PEOPLE

For the future, Cymbre and Griffin Smith

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FOREWORD

Imagine a future a hundred years from now in which the human race has grown up. In this future, the major strategic decisions made by states and companies are almost always effective, because people understand how decisions *work*. Systems thinking has become ubiquitous.

In this world, many of our environmental problems have been solved, because we understand that the costs of mistreating it outweigh any short-term gains. Businesses operate ethically, because failing to do so reduces employee productivity and lowers profits in the long run. Wealth inequality runs at a tiny fraction of its former levels, because leaders across the world have learned the benefits of pressing wealth back into public hands. They have gained the knowledge and tools to better achieve their social goals by empowering and motivating a prosperous workforce. The result is a more stable, more equitable, and happier planet.

The book you're reading now is like a gift from that future dropped into the present. What Lorien has done here – and it is no small feat – is synthesize some of the sharpest current thinking from decision intelligence, AI, causal analysis, and behavioral economics into a decision making methodology anyone can use. The result is a deceptively simple system capable of enabling teams to reliably reach outcomes that are effective, robust, and intellectually honest. She has done this even while some of the research she leverages is still finding its way across the cutting edge of science.

I know this to be true because I've explored that edge. In the course of my career I've worked in around eight different scientific disciplines, as well as operating as a software consultant, entrepreneur, and author – writing the science fiction novels for which I'm most well-known. I've seen what is and isn't there yet in fields as diverse as machine learning, evolutionary biology, and behavioral psychology. With that perspective, Lorien's work leaves me both delighted and impressed. In fact, my first thought on reading her book was "dammit, why didn't I think of doing this?" But therein lies its genius.

I felt deeply honored when she reached out to me, and on reflection believe that she wanted her foreword to reflect the voice of someone who'd see the scope of what she'd achieved. When you develop an idea that's immediately accessible, it's easy for some to miss the hard work it took to formulate, by virtue of its very ease of adoption. However, I recognize the books and research papers Lorien touched to make *Link* possible. I can easily infer the sheer amount of invested time working on real-world problems that must have been required to refine the method. As a result, my hat is permanently doffed in respect in her direction.

Lorien makes strategic decision making look easy. But don't be deceived. It's not. (Or at least, not unless you have a copy of *Link* in your hands.) Otherwise, we'd already been living in that golden future I described. In fact, making good collective decisions is getting harder. As the pace of change accelerates, and the social variables multiply, making the right choices is more difficult than ever. And my own research strongly suggests we should expect that trend to worsen before it improves.

One reason for this is that as the world becomes more interconnected, the number of feedback effects between populations, industries, and the environment increases non-linearly. This means that the timescale at which we can anticipate world events is shrinking fast. And with eight billion people in the world now making ten thousand interrelated but uncoordinated choices every day, global volatility is skyrocketing.

Furthermore, the technology we've built to help us navigate this complex modern world can only help us so much. Data science and AI can only work when regular patterns exist in data to be found. They are far less effective when presented with the output of a rapidly evolving chaotic system. The right tools to manage such a world will be those that capitalize on data, but yield control to the best learning systems we know of for handling complex, multi-level stimuli: human teams. They will be the tools that clarify how every one of us can make better choices each day that bend the arc of the future toward hope.

What this means is that techniques that empower us to find rational, cooperative outcomes to the world's problems are more important now than at any prior time in human history. In fact, the only way for us to get to that

golden future is to pick up tools like the one Lorien has laid before us and make active, vigorous use of them as quickly as possible. It's my deepest hope that the method in this book sees broad adoption and sets us firmly on a path toward a reality we can all be proud of.

Alex Lamb