ART OF DECISION COURSE

28-29 JUNE 2023

how to use probability logic and decision inference, for decision-making corporate business leaders, value investors, government agencies and individuals (maths not needed)





EVENT - 28-29 June 2023, Cambridge

ART OF DECISION COURSE - This course takes place on **28 and 29 June**, led by Dr J Hayward

We face many decisions in business and life. They seem to come along ever faster. This 2-day course for non-mathematician leaders shows how decision-making can be leakproof in logical (Bayes') inference. This leaves only the prior assumptions and motivations for discussion, an approach that maximises success in the longer run, while providing direct, useful information, in the present situation, in each decision. Participants will emerge with practical templates & examples for logical decisionmaking, using tried-and-tested inference. Let's make optimal decisions!

Leader bio: Dr Hayward has a Ph.D., M.Math and MBA from Cambridge University. The Ph.D was in applied mathematics working as the student of the late Prof Stephen Hawking. It included studies of coherence and information in gravity. Justin worked as a quant in research at a top tier investment house in London, looking at implied probability distributions and optimal strategies for trading securities such as foreign exchange pairs, and on portfolio optimisation in the markets. As a contractor for the past 20 years, he has helped a range of businesses with option prioritisation in strategic decisions, including recently, with the chip design leader, Arm. He has had a passion for and belief in Bayesian methods for a number of years and has created a course to offer this excellent decision making process and method to leaders in a concise and accessible form.





TRACK RECORD SINCE 2002 - EVENTS and DECISIONS

CIR is the organiser of these two events; it is an independent, contracting business decision company. Based in Cambridge, CIR welcomes you to its summer events.

We aim to help develop your success through insights and meeting people.

CIR was founded in 2002, since when it has been enabling people to meet in 55 conference days, with 4,500 participants, and 525 speakers covering industry, manufacturing, materials, software, circular economy, energy, transport and the built environment. We are ready to deliver this new decision-making course, excited by this development.

CIR is the home of the High Value Manufacturing, HEAT, SHIFT, Circular Economy, Materials and Graphene, Cleanpower & Smart Grids event series. These series have brought together business, government agencies, inventors with entrepreneurial commercialisers, investors and the supporting business supply chains.



Course Outline

Day 1: Art of Decision, 28 June

Registration and coffee: 10.30 -11.00 am

Session I: 11.00-13.00pm. Introduction, motivation, background

1.00pm-2.00pm Lunch

Session II: 2.00-3.30pm. Basics of Bayes' probability logic

3.30-4.00pm Tea Break

Session III: 4.00-5.15pm. How probability logic works, comparing approaches, examples



6:30pm for 7:00pm Dinner evening!
At a College, CAMBRIDGE

Day 2: Art of Decision, 29 June

Session IV: 09.30-11.00am Basics of decisionmaking logic

11.00-11.30am Coffee

Session V: 11.30-1.00pm. Using probability and desirability

1.00-2.00pm Lunch Networking

Session VI: 2.00-3.30pm. Weighing evidence, odds, rational belief, examples

3.30-4.00pm Tea

Session VII: 4.00-5.15pm. Using probability logic in decision-making, examples



5:15pm EVENT CLOSE

Course attendee sample job areas: Decision-makers | Corporate directors and officers | CxOs | Chiefs of Staff | VPs | General Managers | Government officials | Public sector agency leaders | Technology leaders | Investors | Senior Strategists in-house | Strategic Compliance Officers | Management accountants | Senior risk managers | Private individuals making decisions



Who should attend the Art of Decision Course Cambridge, 2023? Anyone or any organisation:

- 1. with an interest in making better decisions, attaining fluent decision skills
- 2. wishing to understand the basics of Bayesian probability logic
- 3. believing some of its decisionmaking could be improved in speed and quality
- 4. with a specific decision challenge
- 5. whose executives would like to understand the underpin to ML/AI/ChatGPT etc
- 6. wishing to understand how Bayesian approaches stack up against frequentist approaches
- 7. wanting to make the best rare, high-stakes, high uncertainty decision
- 8. planning to build in skills, process and consistency to decisions
- 9. seeking to understand their culture better through decisionmaking
- 11. trying to pull together different groups of stakeholders in decisions
- 12. wishing to have a highly-productive learning experience outside the office in pleasant surrounds

Mathematics is not a prerequisite. You can buy tickets now and find out more on the **website**

Quotes

"We use Bayesian subjective probability methods about 3% of the time and this gives us a strong competitive advantage." CxO Lucida Technology in 2023

'..the record is clear; orthodox arguments against Bayes, and in favour of confidence intervals, have never considered such mundane things as demonstrable facts concerning performance.' Professor E Jaynes, 1978

"In the long run, Bayesian decisionmaking wins.' W Feller, 1950



Booking & pricing (see also	online for	m)	
Date Venue Art of Decision 28 & 29 June 2023 Ca	Fee pe	r delegate	Total fee (incl VAT)
Art of Decision (AD) Course (2-day	y) with/out	Hotel	£2999/2699 plus vat
Additional hotel nights required Circle the number of attendees	1 2	3 4	£300 plus vat /nt Total
Registration instructions			
Participant details: Personal Title: Last Name*: Email*: Mobile*: Address: Post Code: Accounts Contact: Please tick one of the following options, comp your application form as soon as possible. Plea you allow us to take payment and accept your Option 1 Please send me an Invoice Type of card: Visa MasterCard Other Name on card: Billing address of cardholder:	Job Title: Direct Tel: _ Company Aff City: Switchboard Accounts Tel olete the details ase ensure you s place/s at this Option 2	iliation: number: : where requi ign the botto CIR Event. I wish to	pay by credit card We also accept cheques, bank transfer & online card payments, please do this via http://www.cir-
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Payment terms One calendar month from the date of invoice, but plooking conforms to CIR's Terms and Conditions of booking conforms to CIR's Terms and Conditions of the CIR's Terms and Conditions of the CIR's Terms and CIR's Term			

Data Protection: We follow UK law and do not share data with other organisations.

2023 Course Leader: Dr J Hayward

Profile

Justin is a director of CIR Ltd, a company, with a network of associates, that he founded in 2002 to provide strategic decision-making to organisations.

CIR has created and run 55 conference days in manufacturing, energy, materials and software technologies 2002 - 2019.



Background and interests

Dr Hayward has a Ph.D., M.Math and MBA from Cambridge University. The Ph.D was in applied mathematics and included studies of coherence in quantum gravity. He is a senior member of King's College.

He worked as a quant in research at a top tier investment house in London, implementing implied probability distributions from trader data and optimal strategies for trading securities such as foreign exchange currency pairs, and on portfolio optimisation in the bond markets.

He took an MBA at the Cambridge Judge Business School which had modules in statistics, but which focused on frequentist methods.

As a contractor for the past 20 years, he has helped a range of businesses with option prioritisation in strategic decisions, including for example with the chip design leader, Arm. He has had a passion for and belief in Bayesian methods for a number of years and has created a course to offer this excellent decision making process and method to leaders in a concise and accessible form.

Justin enjoys watching his issue play cricket; and running, cross-country & alpine skiing and hiking, and playing snooker.

Course

Justin will lead the Art of Decision course, as outlined above, in seven sessions, over two days with a dinner evening after the first day's sessions.





We look forward to seeing you at Art of Decision Course this Summer 2023 in Cambridge

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course
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