



White paper: The Business Ethics Canvas

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9 May 2020

Introduction

Artificial intelligence (AI) is playing a greater and greater role in our daily lives, impacting on job applications, medical treatments, parole eligibility, and loans and financial services. There are undoubted benefits to algorithmic decision-making in general, and AI in particular. However, the potential for harm – intended or unintended – arising from algorithmic decision-making indicates that an ethical dimension is needed when we engage in AI and analytics projects.

The business ethics canvas

Much of the guidance on ethical investigations for practitioners has been rather abstract. In our paper in the European Journal of Operational Research (2019), "[Exploring the ethical implications of business analytics with a business ethics canvas](#)", we propose a practical way of unpacking and thinking about ethical issues in business analytics. Our aim in this paper is to develop an ethical framework in the form of a business canvas. To do this we draw on the [Markkula](#) Institute for Applied Ethics and their five ethical dimensions (Utilitarian, Rights, Justice, Common Good, Virtue).

Using these five ethical dimensions we created a business ethics canvas (a [BEC PowerPoint template](#) is available). The canvas elements are addressed going in clockwise order around the canvas (Figure 1):

- [1] a proposed analytics solution that address the needs of specific customers (we recommend that these are generated in an opportunity canvas)
- [2] identification of stakeholders that can affect or are affected by the proposed analytics solution
- [3] an assessment of stakeholder utility of the analytics solution
- [4] an assessment of the rights of stakeholders
- [5] an assessment of the fairness (justice) of the solution
- [6] implications for the common good
- [7] reflections on the virtue of the proposed analytics solution

Virtue 7 How does this solution define me as a human person? How does it define us as a company, an organization, a society, etc.? What do I or what do we want to be and become?	Users & Customers 1 What types of users and customers have the challenges our solution addresses?	Solution ideas 1 What are the product, feature, or enhancement ideas that solve problems for our users and customers	Stakeholders 2 Who is affected by, or can affect, the proposed solution? What is their stake in the proposed solution?	Utility 3 What are the benefits of the intended solution? What are the harms created? Who benefits and who is harmed?
Common good 6 What is the community (or what are the communities) in which the decision has to be made? What is the common good?		Justice 5 How fair is the solution? Does it treat everyone in the same way or does it show favoritism and discrimination?	Rights 4 Whose rights are respected or infringed by this action? What are those rights?	

Figure 1: The business ethics canvas (BEC)

The business ethics canvas in action

In the paper we describe how the business ethics canvas was developed through application in an online travel organization that is considering using analytics to target its customers with ‘days out’ offers. The use of post-it notes allows the canvas to be iterated and refined and the use of colour to highlight areas of concern and areas of opportunity (Figure 2).

Virtue <div style="background-color: #90EE90; padding: 2px;">Building compassion and empathy in the team through interaction with diverse stakeholders</div> <div style="background-color: #90EE90; padding: 2px;">Contributing to industries beyond the travel industry</div> <div style="background-color: #90EE90; padding: 2px;">Supporting regional development</div> <div style="background-color: #FF6347; padding: 2px;">Putting the brand at risk if the organization is perceived as being insensitive to local community needs</div>	Users & Customers <div style="background-color: #FFFF00; padding: 2px; text-align: center;">Leisure train travellers</div>	Solution ideas <div style="background-color: #FFFF00; padding: 2px; text-align: center;">As a user, I want to know of attractive, feasible daytrips for me so that I can have an adventure if I so choose</div>	Stakeholders <div style="background-color: #FFFF00; padding: 2px; display: inline-block; width: 45%;">Team members developing the solution</div> <div style="background-color: #FFFF00; padding: 2px; display: inline-block; width: 45%;">Corporate leadership</div> <div style="background-color: #FFFF00; padding: 2px; display: inline-block; width: 45%;">Share-holders</div> <div style="background-color: #FFFF00; padding: 2px; display: inline-block; width: 45%;">Rail providers</div> <div style="background-color: #FFFF00; padding: 2px; display: inline-block; width: 45%;">Leisure trip providers</div> <div style="background-color: #FFFF00; padding: 2px; display: inline-block; width: 45%;">Leisure destination owners and employees</div> <div style="background-color: #FFFF00; padding: 2px; display: inline-block; width: 100%;">Communities in which leisure destinations are embedded</div>	Utility <div style="background-color: #90EE90; padding: 2px;">Elevating customer LTV by raising purchase frequency</div> <div style="background-color: #FF6347; padding: 2px;">Not building more profitable solutions</div> <div style="background-color: #90EE90; padding: 2px;">Creating more joy and adventure in people's lives</div> <div style="background-color: #FF6347; padding: 2px;">Leaving less money for consumer essentials</div> <div style="background-color: #90EE90; padding: 2px;">Raising profitability for rail providers with increased ridership</div> <div style="background-color: #FF6347; padding: 2px;">Increasing load on rail network</div> <div style="background-color: #90EE90; padding: 2px;">Bringing money to local communities around attractions</div> <div style="background-color: #FF6347; padding: 2px;">Increasing congestion in local communities</div>
Common good <div style="background-color: #90EE90; padding: 2px;">Raising inter-regional empathy will increase trust and security</div> <div style="background-color: #90EE90; padding: 2px;">Replacing day trips via car with rail will reduce carbon footprint</div> <div style="background-color: #FF6347; padding: 2px;">Raising fraction of leisure spent on travel will increase carbon footprint</div>		Justice <div style="background-color: #90EE90; padding: 2px;">Reducing inequality by spreading wealth to less well-off communities</div>	Rights <div style="background-color: #FF6347; padding: 2px;">Respecting customer rights to data privacy and security</div> <div style="background-color: #FF6347; padding: 2px;">Respecting community's rights to regulate traffic to public assets</div>	

YELLOW
neutral

GREEN
opportunity

RED
Risk

Figure 2: The business ethics canvas illustrated with use case “DaysOut”

Our research shows that ethical analysis should not be seen as a constraint or overhead to analytics development – exploring the ethical dimension and including multiple stakeholders provides a richer insight into business value creation, as well as providing greater confidence about emerging ethical implications and project risk. Our research proposes that we should position the business ethics canvas (BEC) and the [opportunity canvas](#) (OC) as counterparts where each shapes and informs the other in a creative tension (Figure 3).

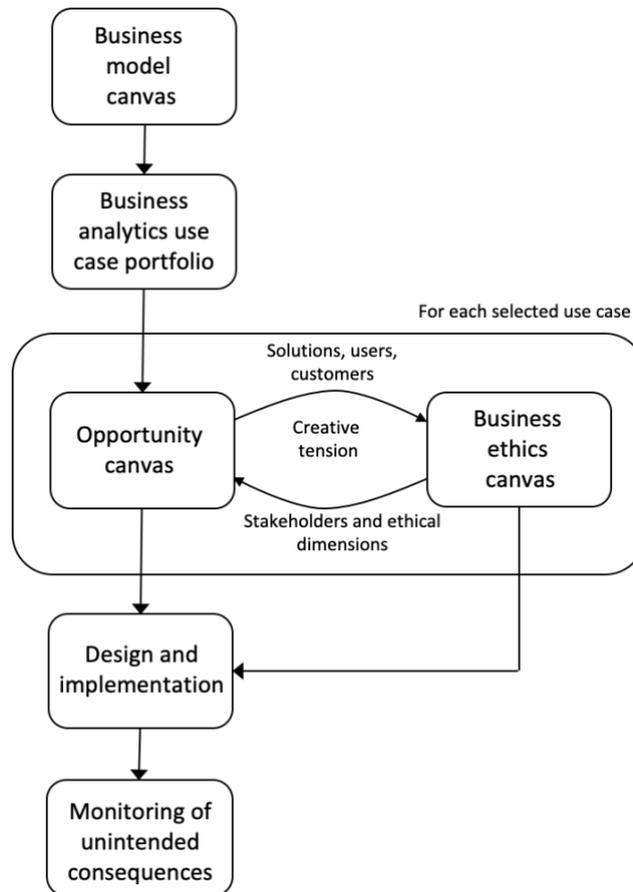


Figure 3: Opportunity canvas and business canvas working together

Further information

See a [video](#) of Ian Randolph at the Operational Research Society’s 2018 Annual Analytics Summit presenting the Business Ethics Canvas.

For full details of the BEC:

Vidgen, R., Hindle, G., and Randolph, I., (2020). Exploring the ethical implications of business analytics with a business ethics canvas. [European Journal of Operational Research](#), 281(3): 491-501.

If you would like to experiment and help us develop this approach further, please contact:

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