MOT121A Leadership and Technology Management | 2023 - 2024 | Group Assignment

Introduction

Innovation is a dynamic process that encompasses developing, adopting, and utilising novel ideas or artefacts within a community of potential users. It can involve innovations new to the world or a specific organisation. The spectrum of innovation types includes product, process, and service innovation, often differentiated by the degree of change and impact. Moreover, the advent of data-driven innovation has ushered in an era where data and analytics contribute significantly to the innovation process, amplifying their role beyond traditional support functions. In light of these advancements, this assignment seeks to explore how companies leverage data and analytics to innovate and create value while also considering principles of responsible data analytics.

Assignment

Form a group of 10 (maximum 11) students for this assignment (note that if you made the assignment last year, you do **not** have to make it again). Each group selects a company or a business unit within a larger firm. Your objective is to investigate how the chosen entity employs (or could potentially use) data and analytics in its innovation process. Building upon the work of Parmar, Mackenzie, Cohn, and Gann (2014)[1], who exemplify data-driven innovation, your exploration should encompass a specific instance of data-driven innovation. Innovation can refer to any innovation types described above (product, process, and service innovation) with any degree of change and impact. To address this inquiry, you must gather information about the company from diverse sources, including online materials (e.g., websites, articles, case studies, …), and, ideally, direct interactions (e.g., by setting up an interview). It is imperative to consider the responsible use of data and data analytics in your investigation. Responsible data science entails addressing ethical considerations, potential biases, privacy concerns, and the transparency of algorithms used for analysis. As you delve into how data and analytics contribute to innovation, reflect on the ethical implications of the application that you selected. Specifically, describe the algorithm employed for the innovation process and discuss its potential risks. Consider how this algorithm might introduce biases, infringe on privacy, or lead to unintended consequences. To get you started, the Saltz &

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[1] See the 'References' section at the end of this document.

Dewar (2019)[1] paper provides an overview of the main issues identified so far. Of course, you are invited to move beyond these issues.

Deliverable

The outcome of this assignment will be a .ppt-presentation (min 5, max 10 minutes) on your findings. Hand in this presentation no later than **Monday, 23 October 2023, 12:00** via Brightspace and contain the following aspects:

- Brief company or business unit overview;
- Explanation of your approach to gathering and analysing information;
- Description of how the company leverages data and analytics for innovation;
- Description of the algorithm used for the innovation process, addressing potential risks, ethical considerations, and associated issues.

We will ask selected groups to present their assignment in the lecture on Wednesday, 25 October 2023. These groups are informed upfront on Tuesday, 24 October 2023.

Group coaching opportunities

It is possible to interact with the moderator of the group assignment, Dr. Sander Smit. We have set up multiple opportunities for interaction:

- <u>MS Teams</u>: Once groups are formed, each group will be assigned to a distinct team in MS Teams. You can interact with the moderator through these Teams. Allow for up to 2 working days to get a response, although we strive to be quicker;
- <u>On-campus coaching sessions:</u> Several coaching sessions are offered throughout the course. These sessions last about 20 minutes. The timeline (see next page) indicates when we offer these coaching sessions. On behalf of the full group, one group member signs up for the coaching sessions by going to https://SanderSmitStudentMeetings.as.me/?appointmentType=52543955 and book a spot by 09:45 on the day of the coaching session. Slots are filled on a first-come, first-serve basis. Sessions take place in room C3.060 of the TPM-building.

Procedural issues

Please submit your presentation to A.C.Smit@tudelft.nl before the deadline as specified in the timeline. Put the names and student numbers of all group members on the front page of the assignment.

Timeline group assignment

Week	Description
37	Introduction of the group assignment in the 2nd week. Group formation and selection of company or business unit. Please self-enrol your group on Brightspace. We will merge groups that do not fulfil the size requirement. Students who did not enrol in a group before **Monday, 18-09-2023, 12:00** are assigned to a group by the assignment moderator
39	Group coaching sessions[2]: - Tuesday 26 September 2023 from 13:45 to 15:45
40	Group coaching sessions[2]: - Thursday 05 October 2023 from 13:45 to 15:45
41	Group coaching sessions[2]: - Tuesday 10 October 2023 from 13:45 to 15:45
42	Group coaching sessions[2]: - Thursday 17 October 2023 from 13:45 to 15:45
43	Submit your group assignment via A.C.smit@tudelft.nl on **Monday, 23 October 2023, before 12:00.** We will ask selected groups to present their assignment during the lecture on **Wednesday, 25 October 2023. These groups are informed on Tuesday, 24 October 2023.**

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[2] Coaching sessions last about 20 minutes. See 'Group coaching opportunities' for how to enroll.

Feedback form group assignment

Group:

Student names:

1.	7.
2.	8.
3.	9.
4.	10.
5.	11.
6.	

Criterion	Assessment			
	Insufficient	**Sufficient**	**Good**	**Very good**
Company overview	Serious misinterpretations	Adequate but limited description	Clear and coherent description	Clear and engaging description
Information gathering and analysis	Poorly addressed or not addressed at all	Addressed but incomplete account	Addressed but small issues exist in the explanation	Complete and reproducible account
Use of data / analytics for innovation	Poorly addressed or not addressed at all	Superficial description, link with innovation is not addressed	Description is given, link with innovation addressed	Complete description, link with innovation thoroughly addressed
Description of and reflection on algorithm used	Poorly addressed or not addressed at all	Superficial description and reflection	Description is given, reflection beyond surface-level	In-depth description and deep reflection
Form and style	Poorly structured and delivered presentation	Competently presented, some issues exist in the logical organisation of arguments	Well-written, logically argued and well-structured. No grammatical and spelling errors	Outstanding command of expression and logical argument in a well-crafted presentation

References

Parmar, R., Mackenzie, I., Cohn, D., & Gann, D. (2014). The New Patterns of Innovation. *Harvard Business Review, 92*(1,2), 86-95. You can retrieve this article via this link (click on "Access online", then on "Get full text").

Saltz, J. S., & Dewar, N. (2019). Data science ethical considerations: a systematic literature review and proposed project framework. Ethics and Information Technology, 21(3), 197-208. https://doi.org/10.1007/s10676-019-09502-5