Executive Summary

Geopolitical conflicts today are increasingly multifaceted and intricate. Inculcating maturity and diplomacy is crucial in preparing the next generation to navigate this complex web of conflict – on personal, national and international levels. *DiplomacyDash!* is an educational training game that develops diplomatic and democratic skills in users via a personalised curriculum undergirded by collaborative and immersive scenario-based gameplay.

Pedagogy

Immersive diplomatic simulations allow students to understand the subtle complexities of international relations, teaching them empathy needed in the geopolitical scene¹. Additionally, research has proven that simulations involving Knowledge, Engagement, Skills and Empathy (KESE) yield better results². Finally, games have been proven to enhance learning retention, student participation and motivation. Thus, *DiplomacyDash!* roots its teaching approach in immersive simulations to optimise learning outcomes.

Product Description

DiplomacyDash!: The Educational Game



DISCOVER. Upon creation of an account, users take the *DiplomacyDash!* Test, to generate a profile consolidating their personality, general knowledge, skillsets and international issues they resonate with. Such preliminary data curates a tailored user experience, constantly updated with every game played.

DO. There are different stages in *DiplomacyDash!*, each depicting a real-world crisis ranging from pandemics and territorial disputes to war. Players are matched up in online real-time games, where they are randomly allocated a fictitious country and unique identity, such as a political leader, business owner or activist, and must work through their different roles and power stati to resolve the main international conflict. Different game modes feature different dominant gameplay components, like dialogue sessions with citizens, signing of peace treaties or passing of resolutions. Based on gameplay complexity, duration for play can range from less than an hour to days, thereby requiring the need for higher levels of collaboration amongst teammates to incorporate such synchronous and asynchronous play.

<u>Discuss</u>: To allow seamless discussions amongst international users, *DiplomacyDash!* utilises a language translation Application Programming Interface (API) which features a speech-to-text recognition and a neural machine translation engine with an autoregressive encoder-decoder architecture that considers the semantic context of text for highly accurate translations.

Each character role also has individual objectives, usually of competing interests to the main common goal. For example, the Land Minister of Country X must work with other countries to resolve a border dispute, but is also tasked with securing a diamond mine in said disputed land to benefit the economy of their country. Hence, users must learn how to strike a delicate balance between managing intragroup and international

conflicts, challenging themselves to exercise thorough diplomacy and democracy to navigate such complex decision-making processes together with their citizens and other countries.

<u>Decide:</u> Users then input their collective choice of action in the user interface. A rule-based Al system is used to control the flow of the gameplay scenarios, using an inference engine that processes input data into corresponding outputs like the establishment of bilateral relations due to strong ties formed between two countries, or economic downturn due to government corruption. Points are awarded based on success in common (measured with indicators like Human Development Index, Gross National Income, fatality count, etc.) and side objectives, incentivising users to practise diplomacy to achieve optimal game progression. They can also experience the decision-making required for different stakeholders in countries under different situations. These are values and insights that spill over into their lives.

DITTO. DiplomacyDash! incentivises long-term engagement, to ensure positive behavioral change in users. This is done via an adaptive neural network model using a machine-learning algorithm, whereby each user's general aptitudes and gameplay performance is stored into a centralised cloud database, to train the model to constantly tune its parameters to improve its outputs. Based on the skillsets the users lack, the model provides personalised recommendations to improve their interpersonal skills, and

¹ Stover, W. J. (2005). Teaching and Learning Empathy: An Interactive, Online Diplomatic Simulation of Middle East Conflict. *Journal of Political Science Education*, 1(2), 207–219. https://doi.org/10.1080/15512160590961801

² Clark, N., & Scherpereel, J. A. (2024). Do Political Science Simulations Promote Knowledge, Engagement, Skills, and Empathy? *Journal of Political Science Education*, 20(1), 133–152. https://doi.org/10.1080/15512169.2023.2204236

generates personalised character roles for them in subsequent games. Through a continuous feedback loop, gameplay is kept fresh and personalised, to ensure efficient and effective experiential learning. Though scenarios for each gameplay is different. DiplomacyDash! records past gameplay histories and displays user statistics, to motivate progression and self-improvement via cultivating user achievement.

DiplomacyDash! (For Schools): The Complementary Educational Package

DiplomacyDash! can be integrated into Character Education lesson curricula, for students to learn and practise diplomacy. Institutes can purchase a yearly subscription of DiplomacyDash! (For Schools) for additional gameplay and complementary features. Institutes have access to a library of interactive online courses on developing technical (eg how councils pass bills and resolutions) and soft skills (eg practical tips on exercising diplomacy in interactions). Educators can host private classrooms where they set simulations specific to their lesson topic, and control the game pace by strategically interspersing teaching elements like interactive slideshows and guizzes throughout. To facilitate review, educators have access to a personal student dashboard, with Individual Reports that reflect their progression of skills. An AI tool that takes into account their dispositions and aptitudes predicts and recommends optimal courses for students to watch, and guidance strategies for caregivers to take, to assist their development.

Market Research

DiplomacyDash! (D2) stands out with its strong focus on youth education. It encourages empathy despite conflicting interests values-based gameplay, and fosters discourse via collaborative features. Most roleplay games are driven by monetary gains by inciting dopamine rushes, but we focus on growing interpersonal skills of mutual understanding and communication.

Market size: The global Game-based Learning Market³ is poised to hit \$29.7B in revenue by 2026, projecting a CAGR of 21.9% from 2021 to 2026. The market receives growing support from educational institutions such as schools with interactive and adaptive learning at its core.

Market Opportunities: D², branded with a strong focus on values-based real-world simulations, shows immense potential in the market for educational games. Furthermore, as schools move toward integrated learning with gamification technology, D² complements this rising trend with interactive machine-learning technology and gamification.

Market Penetration Strategy

Go to Market: D² will launch B2B and B2C channels simultaneously, allowing users worldwide access. The B2C channel is free, where users can download D² from Google Play Store/Apple App Store. We will work with schools worldwide to integrate into education curriculums.

Partnerships: D² is rooted in a mission for peace, aligning with UN goals, allowing us to be a Corporate Sponsee under their Private Sector sponsorship system⁴. Additionally, through partnerships with Governments (Ministries of Education), we can establish our educational system in schools on a national basis for each country we enter.

Finance

D² will conduct Series A fundraising (USD\$3.5M), pitching to venture capital firms and angel investors. This will fund the AI and Software development and prepare us for launch. Following this, D² will profit through the two revenue streams; Subscription Plans for Schools (5 USD per student/year) and providing data analytics* to corporations with aligned interests. The breakeven point will be in FY3 after launch. By FY5. the user base from schools and individuals is expected to reach 5.6mil.

*User privacy and data security is prioritised. No personal user information will be disclosed.

| YEAR | 0 (Pre-launch) | 1 | 2 | 3 | 4 | 5 |
|--|----------------|--------------|--------------|--------------|---------------|---------------|
| Cash Inflows | In USD\$ | | | | | |
| Revenue from School Subscription Plans (B2B) | 0 | 1,750,000 | 3,097,500 | 5,668,425 | 10,599,955 | 20,457,915 |
| Revenue from Data Analytic Sales to Companies with Aligned Interests (from B2C Stream) | 0 | 500,000 | 1,080,000 | 2,592,000 | 6,298,560 | 15,557,443 |
| Total | \$ - | \$ 2,250,000 | \$ 4,177,500 | \$ 8,260,425 | \$ 16,898,515 | \$ 36,015,358 |
| Startup Costs | In USD\$ | | | | | |
| Software Development (Al Algortihm & App) | 1,500,000 | 0 | 0 | 0 | 0 | 0 |
| Annual Costs | In USD\$ | | | | | |
| Al Algorithm R&D and Refurbishment (10% Revenue) | - | 175,000 | 309,750 | 566,843 | 1,059,995 | 2,045,792 |
| App & Software Maintenance | - | 300,000 | 450,000 | 643,500 | 933,075 | 1,418,274 |
| Employee Salary | 1,000,000 | 1,500,000 | 1,875,000 | 2,531,250 | 3,670,313 | 5,138,438 |
| Marketing | 500,000 | 1,245,000 | 1,680,750 | 2,117,745 | 2,753,069 | 3,578,989 |
| Total | \$3,000,000 | \$3,220,000 | \$4,315,500 | \$5,859,338 | \$8,416,451 | \$12,181,492 |
| EBITA | -\$3,000,000 | -\$970,000 | -\$138,000 | \$2,401,088 | \$ 8,482,063 | \$23,833,866 |

³ Game based learning market size & share analysis - industry research report - growth report 2032. MarketsandMarkets. (2022). https://www.marketsandmarkets.com/Market-Reports/game-based-learning-market-146337112.html

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