Daflow market research report

EIT Digital I&E Study course

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The EIT Digital – European entrepreneurs driving digital innovation & education

EIT Digital

Daflow / February 2023

www.eitdigital.eu

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1. Introduction

Nowadays we have a wide access to different types of information, but creating the value from this information is still a challenge.

Many companies face challenges in gathering and analysing data to inform their analysis, which is crucial for the growth and survival in a fast changing environment. The most common issues include:

- Data silos: Data is spread across different sources of information, making it difficult to access and consolidate into a cohesive dataset.

- Data quality: Data may be incomplete, outdated, or inaccurate, and it is a challenge to extract meaningful insights from it. Scrapped data is not always trustworthy meaning that people do not always share the truth. In many cases this data cannot be used for serious market analysis and making reliable predictions or management decisions.

- Lack of expertise: Companies may not have the in-house expertise needed to effectively gather and analyse data.

- Privacy concerns: Companies must balance the need for data with privacy concerns and regulations, which can make it more difficult to access and use certain types of data. Due to the GDPR regulations this data cannot be used without a permission of the data owner. Even if a person shared the information about his or herself, if this information is linked to his or her friends and connected people, this information cannot be used without the permission of those connected people.

- Cost: Gathering and analysing data can be expensive, particularly for smaller companies that may not have the resources to invest in robust data analytics tools or outside consultants. The recent example of a value from organised data is recent innovation by OpenAI - ChatGPT, which is the successor or GPT-3 model. Estimated cost in compute time to train GPT-3 is around $4.6M[1], regardless of the salary costs of professionals.

Daflow is a startup aimed at providing clients with sophisticated analytics of markets, target groups, their behaviour, interests, and more in a structured, clean, and user-friendly format. The amount of unstructured data that people share on social media and other platforms is growing, but it is not very useful unless it is organised and analysed.

[1] https://lambdalabs.com/blog/demystifying-gpt-3

From the perspective of a consumer of statistics, the analytical data that is gathered by the research agencies cannot be used for building AI algorithms or creating descriptive statistics of predictive analysis on top of it, because it is very often not granular enough, not detailed, the number of features gathered is limited by the methodology of gathering this data.

During the project we were searching for a business model that could solve the underlined problems, or at least show the way of solving them. We came to a conclusion that a structured midware between raw user data and a consumer of the data would be a solution. After several workshops and discussions, the idea evolved towards a platform similar to a crowdfunding platform, specially designed for data collection from users willing to sell it on one hand, and an analytical service with gathered, aggregated, cleaned, and structured data on another.

The target audience of “data providers” is Gen Z and Millenials, people who are tech savvy enough to constantly use social media. In this research we are investigating why individuals belonging to this demographic may be inclined to share their data.

We see our service as a community-driven ecosystem which will collect the data from users, and deliver analytics based on the collected data to clients - small and new projects and businesses. Considering the interaction both with users and startups, the vision is that the platform could be similar to Kickstarter, with some differences concerning the scalability of the tiers for the supporters, the iteration of campaigns and the reward system.

Initial key value proposition for the product is not only the idea that we outsource resource-consuming work of building data pipelines and analytical infrastructure. Also, we make our product GDPR compliant by default. We care about anonymization, privacy from the seller's perspective, and usability, reliability of the data, transparency, granularity and flexibility of usage from the perspective of a buyer.

Acknowledgments: we thank Martino Matijevic for guiding us on this project, Anna Oikarinen, the data security professional for consultancy at GDPR topic.

2. Challenge identification

The hypothesis and idea validation is the first step for every startup on its journey to success. In order to validate the general idea of Daflow and the assumptions given, we used the classical approach combining qualitative and quantitative research.

The key assumptions we wanted to validate were:

- Is it true that companies/startups are in deep need of structured analytical data, but they cannot afford building a proper process and infrastructure to be able to use the analytical outcomes?
- Is it true that users are keen on sharing the data?
- What are the drivers or incentives for users to share their data?
- How to narrow the niche? Who exactly are our target customers: both from the source of the data side and the buyers? What are their values, concerns, and pain points?
- How could Daflow bring value and ensure the market fit?

In order to answer these questions it was essential to better understand the environment the startup would place itself in. As a qualitative research we used PESTLE and SWOT analysis.

Our analysis showed that data is becoming more and more essential and valuable for companies. This is one of the reasons why the awareness of the importance of data ownership and cyberspace has become a priority for governments and regulatory bodies these days. Moreover, when companies exert too much power over the marketplace, governments will step in to ensure fairness to consumers. This has happened to utilities, telecommunications, and now it is happening with social media companies in order to disrupt data-opolies. These efforts make it not trivial to approach the market, with laws regarding data in continuous evolution (with GDPR being only the start). This is very well justified since social media exert much power on Gen Z, who are prone to follow the advice from social media and influencers even for financial advice. The supporting data and references can be found in PESTLE analysis in the Appendix.

Moreover, companies' priorities are always evolving. What has become clear to them is that data is essential but it is also expensive. Starting from the infrastructure to collect it, to the dedicated employees such as Data Scientists, Data Engineers, Data Stewards, MLOps Engineers, Data Analysts etc. Due to the high costs and lack of competences in leading the Data Teams, lack of data strategy etc. a considerable number of startups do not build a data-driven team. And this aspect might reflect negatively the final outcome of the startup. Sustainability has also become another priority for companies: from environmental to

impactful, these matters are increasingly being considered. This also applies for Gen Zers, who are much focused on impactful causes and they are willing to act.

We found it important to underline Opportunities and Threats that were identified in SWOT analysis:

The significance of data ownership is increasingly being recognized, creating opportunities for businesses to develop products and services that enable individuals to safeguard and manage their personal data. Moreover, the need for extra income owing to high inflation and debt levels provides an opportunity for businesses to establish platforms or services that enable individuals to generate additional value from their data. Finally, sustainable and impactful causes play a crucial role for both startups and consumers, with Gen Zers being particularly mindful of which initiatives to support and engage in.

On the other hand, the availability of free datasets with ready-made analysis may lead to market erosion, and stricter regulations around power consumption, environmental impact, privacy, security of data, and artificial intelligence could limit innovation and growth.

These factors have a potential to make Daflow unique thanks to its aim to create a community around the platform, the control over the data and the level of data aggregation. This combination has the potential to change how people feel about data and they manage it.

3. Business Research

The main goal of this chapter is to identify and justify all of the assumptions on which the idea has been built upon.

First, a small note on methodology: our predominant source of information was quantitative data, and secondary - a focus on surveys and existing literature. The main reason this approach was chosen was the difficulty in conducting primary research: it's important to obtain a sizable pool to attest statistically significant results, therefore it would have been a more qualitative type of survey. We wanted to stick to the data as much as possible therefore we chose not to follow this path, however given more resources and time this would be the natural direction for future research.

Let's shift the focus onto the research itself: the first set of assumptions are related to the desirability of the service, in particular we could ask ourselves if there is a need for data among startups or even already established companies. A review conducted by MIT sloan school of management [15] shows interesting trends: in 2019 7 out of 10 companies reported minimal or zero return from their AI investments (due to difficulties in deployment), however in 2022 only three years later 92% of large companies have reported increased returns from the AI, and the same percentage has said they will increase their investment in AI and data. A more general survey in the same review shows how for companies the use of AI in at least one function has grown to 56% (2022) from 50% in 2020 . The AI landscape is growing, and models are getting bigger and bigger [16], requiring bigger datasets and multiple data sources. This is true for big companies but even more so for startups, which do not have the capacity and connections to collect data as easily as big techs.

Now arises an issue: isn't the market for data already saturated?

First of all it should be mentioned that the data marketplace platform market is predicted to grow 22.5% per year from now up to 2030 [17], this entails that there is plenty of space for new entries.

Next to understand better what the current market looks like and how we could position ourselves we utilised the VRIO framework (appendix, Figure 3):

We observed how the premises for a blue ocean strategy were not there yet, a real inimitable characteristic is the ability to track and control your data, however we do not possess at the moment the organisational capacity to fully leverage this aspect. By reflecting upon how this could be changed we came up with the idea of focusing on a specific niche of

startups and gen-zers, startups and people with a focus on social and environmental impact. This allows both to reduce the monetary gain for users by raising value in another way, at the same time it also allows to decide where data goes by limiting the pool of startups to a specific category, all of this will be expanded in the business proposal. By following this hypothesis the case for startups is even stronger since data shows how 90% of startups fail and the second biggest reason for failure (29%) is insufficient funding [18], meaning if we can obtain data for free from users we can also sell it at an affordable cost for the client.

Another crucial aspect to consider is that 80% of the population in the EU, as indicated in Figure 1 in the Appendix [19], holds the belief that large corporations are not doing their part for the environment. This perception can be utilised positively to encourage individuals to support green startups, highlighting that genuine progress can be achieved and that it is not just a matter of superficial environmental claims (greenwashing).

By using this data, we can focus our marketing efforts on companies that have a noble mission of achieving zero emissions.

Since we have shifted the focus from startups in general to green startups an important assumption is that the market is big enough to actually need this type of platform. A report by NetZero[20], a company which focuses on tracking EU and US based green tech startups, shows that climate tech investments have grown 20% from 2021 to 2022 reaching more than 80B dollars in funding. In the same report another interesting fact emerges: even though Europe raised less (36.6B dollars) its growth rate (+33%) is much higher meaning green tech fundings will overtake the US, which had a comparatively small +7% increase.

The UK, Sweden, Germany, and France are the countries in Europe that raised the most money, which indicates a high level of interest in addressing the problem of sustainability. Therefore, we suggest starting the go-to-market strategy in these regions.

Funding grows with the number of startups, however it's also important to consider the number of startups directly, as it gives an indication of the overall market. Although we couldn't find data for the entire EU, the Italian Chamber of Commerce conducted a mapping exercise [21] and found that out of 13,500 startups, 2,000 were green. This is a remarkably high percentage, especially when considering that Italy is underrepresented in terms of funding compared to other EU countries. This data suggests that the situation may be even more favourable in countries that provide more funding and definitively demonstrates that the market is sizable enough.

It is worth noting that Daflow's decision to focus on the European market is based on another key assumption. As previously mentioned, two significant reasons support this decision: the rise in funding for green technology and the negative perception of large corporations regarding the environment by a majority of Europeans.

There's three other data points that must be taken in consideration to support this hypothesis: first of all Europeans deeply care about the environment, a survey by Eurostat [22] has shown how 95% of the interviewed thought protecting the environment was important, moreover 23% thought encouraging businesses to engage in sustainable activities was on of the most effective way to tackle climate change.

Lastly, GDPR regulations act as a barrier to entry for organisations that do not comply with them from the outset. This means that once Daflow establishes itself, it will become more difficult for new or established foreign players to enter the market.

After we covered the startups, the next step is to answer the question if gen-zers are the right target for the user side? To ensure that we have a suitable market for our product, we must investigate how potential users, referred to as "data suppliers," align with this environmentally conscious paradigm. Furthermore, we need to investigate whether individuals would be willing to offer their data free of charge to support startups. If not, we need to determine their motivation and explore what incentives would encourage them to do so.

To support these assumptions, we have found a survey conducted by Deloitte [23] (Fig. 4 in the appendix), which indicates that climate change/protecting the environment is the primary concern for gen-zers, whereas millennials place healthcare and disease prevention as their top priority. This finding illustrates how the issues and concerns can vary significantly even among age groups that are relatively close in age and highlights that gen-zers are particularly interested in environmental protection.

Another important survey performed by the European Commision [24] reveals that 21% of the respondents have taken seven or more environmentally friendly actions in the past six months. Given the relatively low effort required to download and crop data on our platform and the fact that the data is already monetized by large corporations, it is not far-fetched to assume that people would be willing to add this environmentally friendly action to the other seven they already perform.

Finally, the same survey underlines an important point: the main channels used to get information about the environment are Facebook(76%), Youtube(35%) and Instagram(30%).

This couples well with the projected increased usage of social networks by gen-zers as shown in the Fig. 2 included in the appendix, the data is referred to the US population but it's fair to assume a similar trend will also occur in Europe given the general increase in usage shown in a survey by Eurostat [25]. This research points in the direction of using social networks as a channel for promotion of the company since they attract both people interested in preserving the environment and genZs.

Finally, polls have shown [26] how out of all the interviewed gen-zers 79% love the idea of loyalty programs and only 49% are focused on financial rewards, this means that the financial aspect is not so relevant as long as we are able to provide rewards for their contribution to our mission.

We can move to feasibility assumptions: the main hypothesis is that this service is compatible with GDPR and that GDPR regulations will not change in the short term. To validate the first hypothesis we set up a meeting with Anne Oikarinen, she works as Information security manager at Futurice, with experience in technical security and security governance.

What expired from the meeting focused on GDPR and best practices is that handling the data would require lot's of care, since it is a possible target for a data breach, also as the expert confirmed GDPR enforces consent as the deciding factor whether the data is handled legitimately or not. In our case the user would provide written consent to use their data, however data downloaded from social networks also contains pictures, which might in turn include other persons and their usernames. A simple approach to handle this issue would be to simply filter out all the pictures from the received data to avoid any legal issue. This is also supported by the fact that only around 5% of EU citizens would agree to share their facial image with a private company according to a survey performed by the European Agency for fundamental rights [27].

As per the second hypothesis there is no way to be certain, however new acts seem to have moved on to other matters such as artificial intelligence, especially for critical application (medical, security, etc.) therefore no risk is currently foreseeable.

4. Business Proposal

Research Outcomes

Based on the research, the primary value proposition for Daflow is to provide users with the opportunity to be part of a community that contributes to the greater good by providing trustworthy data to world-changing companies and startups with noble values.

Despite the fact that Daflow may face significant challenges, there is a potential in the market in a specific niche. The challenges may include collecting and adding value to data, identifying the target customers, dealing with market erosion caused by the availability of free datasets with ready-made analysis, uncertainty in potential impact of stricter regulations around power consumption, environmental impact, privacy, security of data, and artificial intelligence raises concerns.

Our research suggests that there is a significant need for data among startups and established companies, with the data marketplace platform market projected to grow by 22.5% annually until 2030. The market is not yet saturated, and there is a clear demand for a platform like Daflow that allows individuals to control their data.

The European market appears to be an ideal starting point for Daflow, Sweden, Germany, and France in particular. The research shows that the growth in green tech funding and the negative perception of big companies regarding the environment make Europe an attractive market. Additionally, GDPR regulations provide an entry barrier for organisations that do not adapt from the start. Gen-zers are identified as the right target for the user side of Daflow, given their focus on protecting the environment and their interest in loyalty programs that provide non-financial rewards for their contributions to a mission.

The feasibility of the service with GDPR regulations was validated, as handling data requires a lot of care, and GDPR enforces consent as the deciding factor in determining whether data is handled legitimately or not. This finding suggests that Daflow can move forward, knowing that the service is feasible and can meet regulatory requirements in the European market.

As a new migrator entering the market, Daflow must address the identified challenges while leveraging opportunities to become a successful platform. By focusing on a specific niche of startups and Gen-zers with a focus on social and environmental impact, leveraging European

sentiment towards big companies that are not doing enough for the environment, emphasising the importance of sustainability, data privacy, and security, Daflow can differentiate itself from competitors and become a leader in the data marketplace platform market.

Proposal

Continuing our proposal to Daflow, we suggest focusing on building a community of Gen Z individuals and ethical startups. This community would be interested in participating in noble initiatives that aim to improve society and the world, and would be connected through a platform that allows Gen Z individuals to securely and transparently share their data with startups at an affordable price.

The platform would offer Gen Z individuals transparency about the noble initiatives their data is being used for, creating a sense of purpose and ownership over their data. By encouraging them to co-create the community around the platform, Daflow can foster a sense of collective responsibility towards making the world a better place. Startups would have the flexibility to decide the nature of the rewards for the individuals, including coupon discounts, gadgets, or recognition such as certificates or badges.

Gen Z individuals are an important customer segment for this platform as they are increasingly becoming conscious of data privacy and the responsible use of data. They are tech-literate and active users of social media platforms, and are actively looking for ways to use their data for financial gain and to participate in initiatives that can help to make the world a better place. They are also very mindful of the importance of data privacy and security, and understand the potential risks of sharing or selling their data to the wrong people or organisations.

Ethical startups, on the other hand, are a key customer segment for this platform as they are focused on creating positive social and environmental impact. These startups often have limited access to high-quality data at an affordable price, which can hinder their ability to make better business decisions. By leveraging the platform's data-sharing capabilities, ethical startups can access data from Gen Z individuals and other sources to make more informed decisions and drive innovation.

The proposed platform will foster a culture of trust and cooperation between customers, enabling individuals, businesses, and organisations to collaborate, share knowledge, and

access resources to drive innovation and growth in the data market. This community-driven approach will help to build a strong, engaged community of Gen Z individuals and ethical startups committed to improving society and the world through responsible data use.

Business Model

Customer Segments

The proposed platform targets two main customer segments: Gen Z individuals and ethical startups. Gen Z individuals are interested in participating in initiatives that aim to improve society and the world and are conscious of data privacy and the responsible use of data. Ethical startups are startups that are focused on creating positive social and environmental impact and have limited access to high-quality data at an affordable price.

Value Proposition

Daflow's platform aims to provide a secure and transparent way for Gen Z individuals to share their data with ethical startups for noble initiatives that aim to improve society and the world. The startups on the platform incentivize Gen Z individuals to share their data by offering them coupon discounts, gadgets, or recognition, such as certificates or badges. For ethical startups, the platform provides access to affordable high-quality data, allowing them to make better business decisions without compromising on data quality. The platform would also ensure data traceability and quality since it put the consumers of the data directly in touch with the source of it.

Channels

Daflow's platform will primarily be marketed through social media platforms, targeting Gen Z individuals who are active users of these platforms. The platform will also be marketed to ethical startups through partnerships with organisations and institutions that focus on social and environmental impact. Daflow will collaborate with incubators, accelerators, and business angels to reach a wider audience and provide additional resources and support to startups.

Customer Relationship

Daflow's platform aims to foster a culture of trust and cooperation between customers by enabling individuals, businesses, and organisations to collaborate, share knowledge, and access resources to drive innovation and growth in the data market. The platform will also provide customer support to address any questions or concerns that Gen Z individuals and ethical startups may have. Daflow will also have a legal team to ensure compliance with data privacy and security regulations and to resolve any legal issues that may arise.

Revenue Streams

Daflow's platform will generate revenue by charging ethical startups a fee for access to the data shared by Gen Z individuals. The fee will be affordable and determined based on the type and amount of data required by the startup. Daflow will also offer premium features and sponsorship opportunities to startups who want to expand their access to data or promote their products and services to Gen Z individuals.

Key Activities

The key activities of Daflow's platform include developing and maintaining the platform, securing and managing data, developing partnerships with ethical startups, and marketing the platform to Gen Z individuals and ethical startups. Daflow will also collaborate with incubators, accelerators, and business angels to provide additional support and resources to startups.

Key Resources

Daflow's key resources include a team of developers and data security experts to develop and maintain the platform, partnerships with ethical startups and organisations, and a secure and scalable data infrastructure. Daflow will also have a legal team to ensure compliance with data privacy and security regulations and resolve any legal issues that may arise.

Key Partnerships

Daflow's key partnerships will be with ethical startups and organisations that focus on social and environmental impact. These partnerships will enable Daflow to provide high-quality data to ethical startups and promote the platform to Gen Z individuals who are interested in participating in noble initiatives. Daflow will also collaborate with incubators, accelerators,

and business angels to reach a wider audience and provide additional resources and support to startups.

Cost Structure

Daflow's main costs will be associated with developing and maintaining the platform, managing and securing data, and customer support. Other costs may include marketing and advertising expenses, partnerships and collaborations, legal expenses, and infrastructure and technology costs. Daflow may also incur costs related to providing premium features and sponsorship opportunities to startups.

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5. Recommendations for the company

Research to be done

In order to validate the idea, confirm the minimum desirability, feasibility, and viability of the final product we suggest conducting additional primary research on the topic according to the research plan. This research plan, in addition to the current market research, should include competitor analysis, technical feasibility, financial feasibility, legal and regulatory compliance in a chosen geography, scalability, product testing, business model validation, and distribution and sales channel research.

We suggest conducting surveys, interviews, and focus groups with potential customers who are environmentally conscious and interested in sustainable products and services. The research conducted for this report is mainly secondary, but with sufficient funding it would be beneficial to do field tests on the opinion of customers, especially qualitative opinions on how they would feel sharing their data, what would inspire them to do so, etc.

The surveys can also be done via the most popular social media channels among our target group - Facebook, YouTube, and Instagram.

Financial feasibility should also be analysed, including the projected costs, revenues, and profitability. Additionally, it would be important to investigate possible sources of funding for sustainable startups, like impact investors or grants for environmental projects. This will help determine whether the proposed solution is financially viable and will generate a return on investment.

Scalability is also an important aspect to consider, as the proposed solution should be able to grow and expand as demand increases, while also assessing the environmental impact of the solution at each step of the growth process. The organic growth of the user-base, as well as the retention rate will show how successful was the choice of the launch market. We suggest looking at the population pyramid of a chosen country with the highest portion of the target audience, while considering the adoption rate metrics. This will help ensure that the solution

can be scaled to meet the needs of a growing market and that the value of helping green startups is not eroded by polluting data centres.

The research may include conducting market simulations, creating financial projections, and seeking feedback from industry experts.

Product Roadmap

First Iteration (0-3 months):

Define the Minimum Viable Product (MVP): The MVP is a basic version of the solution that includes only the essential features and functionality required to validate the solution with users and gather feedback.

Build the MVP: The MVP should be built using a lean and agile development approach, with a focus on rapid prototyping and user testing.

Technical MVP in our understanding is a website with the clear communication what it is for, and the interface for manual upload of the data from social media.

Validate the MVP: Once the MVP is built, it should be tested with a small group of users to validate the solution and gather feedback. It can be done with the help of friends, colleagues, or mentors from startup accelerators. The main aim is to test the usability and all the automations of the solution, and bug fixing.

1 year:

Launch the solution: Once the MVP is validated and any necessary changes have been made, the solution can be launched to a larger group of users for free testing.

Gather user data: Start gathering data from users who are participating in the platform, this data will be valuable for startups and companies to make data-driven decisions. At this phase Daflow will start creating the value for the potential clients. At this particular moment it is important to create the client, and fine-tune the final product according to the client's requirements. This period could become the most challenging for the Daflow while crossing the chasm and business MVP creation. In order to create the value for the client, Daflow will need to gather the data from thousands of users. This can be done with the help of affiliated participants. We mean here investors, their network, coaches of the startup accelerators, etc.

Start monetizing the platform: Start generating revenue from the platform by charging startups and companies for access to user data introducing the subscription policy.

Next steps:

Iterate and improve: Continuously iterate and improve the solution based on user feedback and data.

Scale the platform: As the platform grows, focus on scaling the solution to meet the needs of a larger user base and a growing market.

Expand to new markets: As the solution becomes more established, consider expanding to new markets and target audiences, taking into consideration the analogs of the GDPR regulations outside EU.

Innovation Improvements

To make the proposed technology successful in the market, several changes or improvements may need to be made in innovation terms. One of the key aspects is to ensure that the solution is designed with the user in mind, considering their needs, pain points, and preferences. This can be achieved by conducting user research, usability testing and gathering continuous feedback from potential users. The solution should also be designed to scale as demand increases using elastically scalable cloud services, ensuring that the technology can handle a larger user base, and that the business model is sustainable. Data security is also a critical aspect of the solution, user data should be protected with best practices of data security, encryption, and privacy policies. In order to be able to face security issues, we suggest vulnerability tests.

Integration with other platforms is also important, the solution should be designed to integrate with other platforms and technologies that users already use, such as social media, email, and mobile devices. The solution should also be differentiated from existing solutions in the market, whether through its features, user experience, or business model. It should offer something unique that sets it apart from existing solutions. Continuous improvement is also important, the solution should be designed with the ability to continuously improve and evolve over time, based on user feedback and market trends. This can be achieved through continuous testing, experimentation, and iteration.

Finally, a strong marketing and branding strategy is essential for raising awareness and driving adoption of the solution. This includes developing a clear and compelling value proposition, building a strong brand identity, and creating engaging and effective marketing

campaigns. In summary, to make the proposed technology successful in the market it's important to focus on user-centred design, scalability, data security, integration, differentiation, continuous improvement, and effective marketing and branding.

Implications for the future development of the technology

The future development of the technology of Daflow may have several implications that need to be considered to ensure its continued success. One of the key implications is the advancements in machine learning and artificial intelligence, which may allow for more efficient and accurate analysis of the data collected by Daflow, resulting in more powerful insights and recommendations for startups and businesses. Another implication is the increase in data privacy regulations, which may impact the way data is collected, stored, and shared, and it's important to stay up to date with the latest regulations and ensure that Daflow complies with them.

It's also important to be aware of changes in consumer preferences, as it may be necessary to adapt the platform to meet the evolving needs and preferences of users. This could include adding new features, redesigning the user experience, or expanding to new markets. Furthermore, increased competition in the market for data-driven solutions is likely, it will be important to stay ahead of the curve by continuously improving the platform and differentiating it from competitors.

Additionally, advancements in blockchain technology may be used to enhance the data security and transparency in the platform, which can help in creating trust among the users and companies using the platform. Lastly, changes in the startup ecosystem may require adapting Daflow to meet the needs of new types of startups and businesses, such as expanding to new industries or supporting new business models.

In summary, it's important to stay informed about the latest trends and developments in the market, and to be prepared to adapt and evolve as necessary. This will ensure that Daflow remains competitive and continues to provide value to its users.

Go-To-Market Strategy

A successful go-to-market strategy requires a comprehensive approach that leverages various channels and tactics to build brand awareness, attract and engage the target audience and ultimately drive sales.

To build brand awareness, a website and social media profiles can be created. Online ads and targeted social media campaigns can also be run to reach the target audience.

For content marketing, blog posts, videos, and other content that highlight the benefits of Daflow and how it can help the target audience can be created. This content can be shared on the website and social media channels to attract and engage the target audience.

To reach a wider audience, influencers and thought leaders in the target market can be partnered with through influencer marketing. They can be asked to review the product and share their experiences with their followers.

For public relations, industry publications and journalists who cover the GenZ and startup markets can be reached out to. Exclusive access to the product and company can be offered to generate positive buzz and press coverage.

Product demos and trials can be offered to the target audience for familiarity with Daflow. Feedback can be collected to generate word-of-mouth marketing.

Early customers can be leveraged for referral marketing. Incentives such as discounts or free access to premium features can be offered to incentivize referrals.

To reach a wider audience, partnerships with other companies in the target market can be formed. Coworking spaces or accelerators that cater to startups can be partnered with to promote Daflow.

Analytics and user feedback can be used to continuously improve the go-to-market strategy. Testing different channels, messages, and offers to see what resonates best with the target audience is important for success. Overall, understanding the target audience, building a strong brand, and leveraging multiple channels to reach and engage customers are key to a successful go-to-market strategy for Daflow.

6. Team experience and lessons learned

Kseniia Isavnina - AI, Angel Investor

During the project I tried not to interfere much. I did it only when it was really needed. For example, asking the right questions at the right time, when there was a concern about a specific topic, summarising the discussion, challenging arguable assumptions, filtering them through my experience. I tried to crystallise the rational seed in overall logic making it viable in evolving in a proper direction. Martino was a great coach, really “looking through” people and challenges. I enjoyed working on this project and enhanced my personality.

However, there are external factors that prevented the project from making steps forward like creating MVP in a timeline that we had. The conditions at UCA for fostering an entrepreneurial mindset and collaborating with EIT may be insufficient. Issues with transparency in the university, trust, and collaboration exist, along with a lack of diversity among students. Communication channels are not transparent enough to bring all students on the same page, while the program's structure presents challenges such as overloading students with assignments from non-synchronized curricula and scheduling multiple exams on the same day. Improvements to the organisation's methodology and communication channels may be necessary to create a supportive environment for growing successful entrepreneurial teams capable of launching a startup from scratch.

The people that I worked with on this project are fantastic, really talented in their domains. I enjoyed working with them. With a better attitude and care they can achieve phenomenal results.

Chiara Fumelli - PM, Panic Manager

This project gave me the opportunity to, besides working with wonderful human beings, apply all the business and entrepreneurship theory I have learnt during my academic career.

My main role has been mostly focused on researching and analysis: especially in the beginning we needed to understand if the idea could work in the setting we were in, who would be our personas and competitors. I conducted thorough analysis presenting the results in the PESTLE, which was very useful for supporting the SWOT analysis.

I wasn’t very familiar with the whole process for creating a startup and thanks to this project I have a clear view of all the steps necessary to set it up.

Moreover, I enhanced my public speaking and listening skills by delivering a pitch and presentation to the class and listening to their constructive criticism.

Riccardo Pazzi - CRO, Chief of Relentless Optimist

I really enjoyed working on this project with the team, my role was focused on the research aspects of the work. My main focus was to understand and justify all aspects in the business proposal to provide a strong foundation. The experience allowed me to increase my business research skills and increased my understanding of how a business owner should think before proposing any idea. The tutoring of Martino taught me the importance of providing proof to any claim and was very methodic. It helped me in having a more concrete sandbox in which I will be able to test my ideas and get to the root of each problem.

I encountered some difficulties in managing my time during the project: It was harder than expected to keep up with all the different demands going on during the semester, but in the end it helped me in getting more organised and focused on one objective at a time.

The communication inside the team was not perfect at all time, there were some conflicts but overall we did a great job at listening to each other and finding a compromise whenever two conflicting views were presented.

Giacomo Pizzamiglio - CEO, Chief Espresso Officer

During the project, I was responsible to develop and propose our business idea. I focused on evaluating the analysis and business research to understand the market trends, the target customers, and the competition.

The experience allowed me to enhance my business research skills and gain a better understanding of the process of creating a startup. Working with my team, I learned how to effectively communicate and collaborate with others, and how to resolve issues that arose. I also improved my public speaking skills by delivering a pitch and presentation to the class, receiving feedback, and incorporating it into future presentations.

While there were challenges in managing my time and navigating communication issues, the project provided a valuable opportunity to apply theory learned in my academic career and gain practical experience in entrepreneurship.

Overall, I am grateful for the opportunity to work with such a dedicated and talented team and to have learned so much throughout the project. This was an invaluable learning experience that has enhanced my understanding of business development and the importance of teamwork.

Alessio Di Domenico - CPO

During the Innovation and Entrepreneurship project, I learned a great deal about the entire process of developing and proposing a business idea. In terms of content, I gained a better understanding of various topics such as market research and financial projections.

The applicability of the methods and tools used throughout the project was also insightful. I learned how to conduct market research, analyse data, and develop a business plan.

The process itself was an invaluable experience. Working collaboratively with my team members to develop Daflow from scratch, I learned how to effectively communicate and coordinate with others to achieve a common goal. Finally, presenting our business proposal to the class and receiving feedback was a valuable experience that helped me improve my presentation and public speaking skills.

7. Appendix

PESTLE Analysis:

Political:

When dealing with data, raising awareness regarding the importance of data ownership and cyberspace has become a priority for governments and regulatory bodies. As an example of the commitment there is the American Data Privacy Protection Act (2022), where the intent is to restrict the abuse of Big Tech companies from excessive data collection and transfer of their consumer data [1].

The focus for governments has also shifted towards disrupting data-opolies, meaning having just few companies owning the majority of data. [2]

Economic:

Regarding the customer side, it is relevant to notice that the general trends towards high inflation rates is creating the demand for secondary incomes to be able to cover all living costs. [3]

This highly impacts the younger economic independent class (generation Z) that [4] averages a 3000 € debt excluding student loans.

Concerning the startup client's side, it is important to point out that data science and management are expensive in time, money and expertise so it's common for small and medium size companies to outsource the tools and competences.

An average salary of a data scientist is around 75000€-122000€ per year, the hourly charge for a freelance data scientist can go from 35€-200€ [5].

Many startups do not use data science to analyse and make decisions due to the high price [6].

Social:

The usage of social media is growing every year, but keeping up with all privacy policies and being really aware of the agreed terms is a complex and time consuming process. Only 9% of the tested people declared to always read privacy policies. [7]

Social media acquire more and more power everyday and now can influence financial decisions of Generation Z users: 34% are prone to invest or follow advice on TikTok and 33% on Youtube, leaving the rest to financial advisors or institutions. [8].

For companies today, it is no longer enough to focus only on delivering profits and creating value for shareholders, they also need to show that they are making a difference to the environment and society. As demand for business to demonstrate its sustainability credentials grows, companies are being held accountable by consumers, investors, regulators and other stakeholders and increasingly face reputational damage or legal liabilities if they fail to appropriately manage ESG issues.[9]

Moreover Gen Zers have shifted their focus on the cause/mission of the company [14] and 41% of Gen Zers put as most important issue climate change [13].

Technological

As data is the new currency [10] how to protect it and exploit it is the concern of many fields.

Federated and privacy preserving machine learning is a new field that is evolving in the current times. This kind of technology enables multiple entities who do not trust each other to collaborate in training a machine learning model on their combined dataset without actually sharing data.

Another example of new technology is differential privacy: it is a system for publicly sharing information about a dataset by describing the patterns of groups within the dataset while withholding information about individuals in the dataset.

Furthermore the number of ready-made datasets has increased.

There is also an increase of blockchain technology applications.

Environmental

The advancement of all of these technologies leads to a high level of resources demand. The carbon footprint of data storage is climbing the ladder, being responsible of 2% of the global carbon emissions [11]. For this reason, one of the priorities for companies is to find renewable sources or efficient technologies for data centres powering and cooling such as solar panels [12].

Legal

Data collection and regulations are changing and evolving very frequently.

In fact, the evolution of GDPR policy hinders data collection and storage. Furthermore GDPR will enforce data transparency in data trading. Big platforms are not GDPR compliant by default.

SWOT analysis:

STRENGTHS	WEAKNESSES
Use of new technologies for privacy maintenance and transparency Blockchain or other techs to track data flow Efficiency for both users uploading the data and startups using the tool	Need for a legal team to address and follow all the laws regarding privacy and data There isn't a big demand in continuous market analytics among startups There would be a power consumpion of big data, AI and Blockchain There is the need for a highly specialized technical team
OPPORTUNITIES	**THREATS**
Rising awareness in importance of data ownership Rising need for additional income (with high inflation the result is a high debt) Increased use of social platforms by gen Z Increasing need for data among tech startups Big platforms are not GDPR compliant by default, but they can be tuned to it GDPR allows to download personal data from platforms Rise interest in impactful causes supported by the startups	The availability of free datasets with ready-made analysis leads to market erosion Stricter regulations about power consumption and environmental impact Strengthening regulations around privacy, security of data and artificial intelligence

Graphical resources

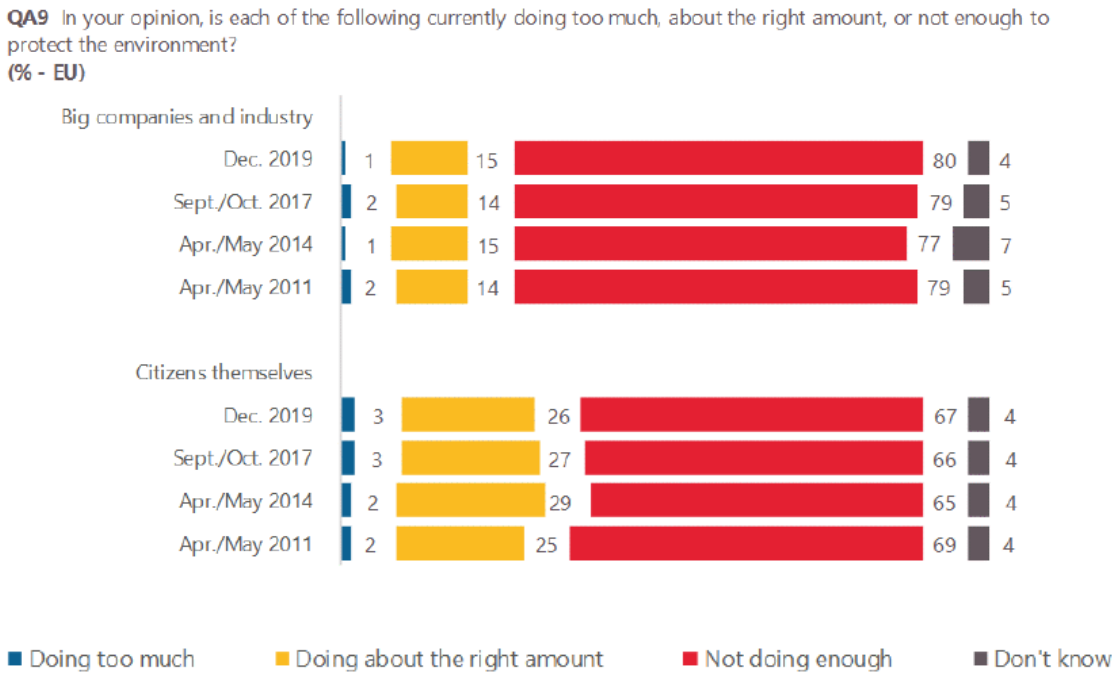

Figure 1. This graph was taken from a survey conducted by the European commission on EU citizens to analyse their behaviour and outlook on environmental issues.

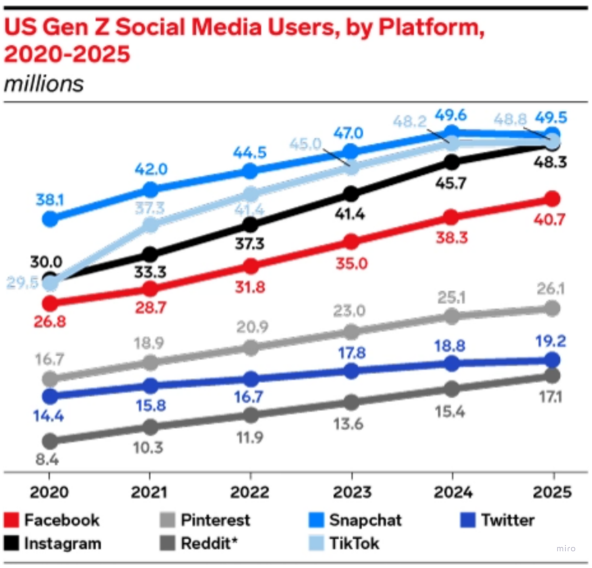

Figure 2. Trends in social media usage for Gen Z (1997-2012) in the US, users were considered active if they accessed their account with any device at least once per month

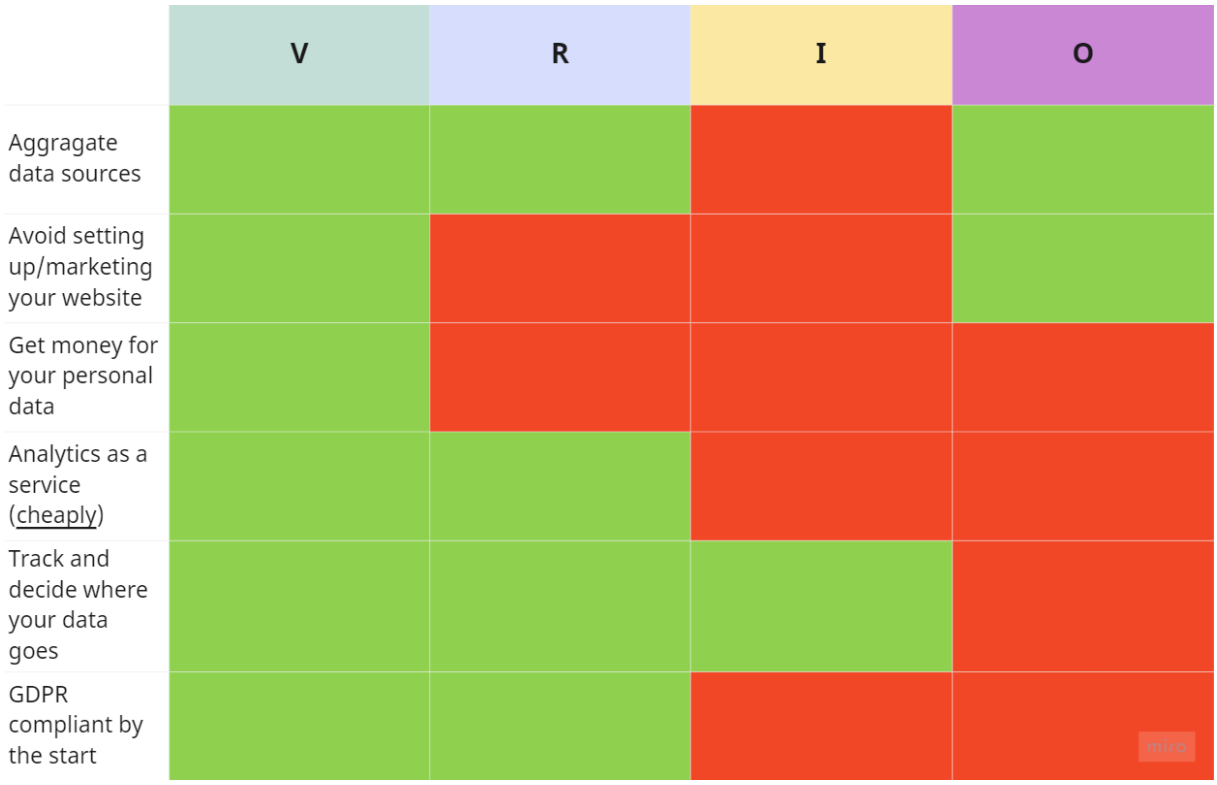

Figure 3. VRIO canvas to study the market for data analytics as a service, it highlights how we might lack the organisational capability to truly offer data tracking and become inimitable

Figure 4. GenZ and Millenials responded to “which of these issues are of greatest concern to you?”, the survey polled 15000 millennials and 8000 gen Z

8. References, web links

1) https://www.congress.gov/bill/117th-congress/house-bill/8152/text
2) https://www.theracetothebottom.org/rttb/2020/11/11/dealing-with-data-opolies
3) https://tradingeconomics.com/european-union/inflation-rate
4) https://www.fincap.org.uk/en/insights/borrowed-years-a-spotlight-briefing-on-young-people--credit-and-debt
5) https://capturly.com/blog/how-much-does-it-cost-to-hire-a-data-scientist-in-2022/
6) https://techdayhq.com/community/articles/does-your-early-stage-startup-need-a-data-scientist
7) https://www.pewresearch.org/internet/2019/11/15/americans-attitudes-and-experiences-with-privacy-policies-and-laws/
8) https://www.cutimes.com/2022/07/19/gen-z-favors-tiktok-youtube-for-financial-advice-over-fis/?slreturn=20230021121550#:~:text=Of%20the%20Gen%20Z%20consumers,adults%20participated%20in%20Vericast's%20survey
9) https://www.agcs.allianz.com/news-and-insights/news/grd-sustainability-trends.html
10) https://www.foxbusiness.com/business-leaders/data-is-the-new-currency-hewlett-packard-enterprise-president-says
11) https://greenly.earth/en-us/blog/ecology-news/what-is-the-carbon-footprint-of-data-storage
12) https://www.datacenterfrontier.com/special-reports/article/11427357/the-state-of-renewable-energy-for-data-centers#:~:text=Data%20center%20operators%20can%20increase,makes%20on%2Dsite%20storage%20practical
13) https://www.forbes.com/sites/emanuelabarbiroglio/2019/12/09/generation-z-fears-climate-change-more-than-anything-else/?sh=1bed5468501b
14) https://kilpatrickexecutive.com/gen-z-and-millennials-values-are-shifting-and-changing-the-future-of-work/
15) https://sloanreview.mit.edu/article/companies-are-making-serious-money-with-ai/&sa=D&source=docs&ust=1677257093671610&usg=AOvVaw2TGII4-uEw4oKdPE4-OkUw
16) https://www.technologyreview.com/2021/12/21/1042835/2021-was-the-year-of-monster-ai-models/
17) https://www.grandviewresearch.com/industry-analysis/data-marketplace-market-report
18) https://www.embroker.com/blog/startup-statistics/#:~:text=About%2090%25%20of%20startups%20fail.&text=10%25%20of%20startups%20fail%20within%20the%20first%20year.&text=Across%20all%20industries%2C%20startup%20failure,be%20close%20to%20the%20same.&text=Failure%20is%20most%20common%20for,70%25%20falling%20into%20this%20category
19) https://europa.eu/eurobarometer/surveys/detail/2257
20) https://netzeroinsights.com/wp-content/uploads/2023/01/State-of-Climate-Tech-22-Net-Zero-Insights.pdf
21) https://www.green-startups.it/
22) https://europa.eu/eurobarometer/surveys/detail/2257
23) https://www.deloitte.com/content/dam/assets-shared/legacy/docs/insights/2022/2021-deloitte-global-millennial-survey-report.pdf

24) https://europa.eu/eurobarometer/surveys/detail/2257
25) https://ec.europa.eu/eurostat/web/products-eurostat-news/-/edn-20210630-1
26) https://morningconsult.com/2022/11/09/data-privacy-is-different-for-gen-z/
27) https://fra.europa.eu/en/news/2020/how-concerned-are-europeans-about-their-personal-data-online
28) https://www.insiderintelligence.com/charts/us-genz-social-media-users/#:~:text=Gen%20Zers%20make%20heavy%20use,are%20growing%20at%20different%20rates

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