



**Girl Effect**

# Final Insights Report

Patrick J. McGovern Foundation

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# **Power and potential: Unlocking data and digital ecosystems to realize girls' sexual and reproductive health and rights.**

## **Background**

In February 2023, Girl Effect initiated a nine-month project within the Patrick J. McGovern Foundation's (PJMF) Accelerator Program, Data to Safeguard Human Rights.

Girl Effect's objective within this program was to explore and implement modern data tools to develop a centralized data repository and create an accessible data platform to streamline data-validated program planning and evidence-based decision-making within Girl Effect. The primary outcome was to enhance Girl Effect's ability to meet user needs and forge more effective pathways to impact.

This project is intended to optimize technologies and data capabilities, allowing the delivery of sexual health information and services to girls with greater precision, and to establish advanced processes for data-driven decision-making across the entire organization. Sexual and reproductive health (SRH) for women and girls is integral to human rights, and by improving data use and technological tools, Girl Effect will be better equipped to deliver trusted SRH information and services to women and girls at scale.

The project was divided into six phases: Pre-project, Onboarding, Discovery, Foundational Architecture, Ongoing Development, Capacity-Building, and the Handover Phase.

The focus of the Pre-project, Onboarding, and Discovery Phases was to set up the resources needed for the project, explore data sources, use this exploration to assess the requirements of their data infrastructure and make key decisions about the technology stack that will underpin the new architecture. During this phase, Girl Effect put together the project delivery team, launched the project, made the first major technology stack decision around which cloud platform provider to choose for the new data platform, and kicked off a Data Protection Impact Assessment (DPIA). Upon the recommendation from Girl Effect's technology partner, Solid Lines, Microsoft Azure was chosen as the cloud platform provider and the DPIA is continually being updated as the project progresses, with input and guidance from the data officer consultant.

During the Foundational Architecture phase, Girl Effect's engineering partner, SolidLines, built and presented the first iteration of the new data platform architecture, including proof-of-concept dashboards, featuring two data sources. This initial platform design is easily configurable for the

organization’s needs and easy for the average user to understand. Sharing inputs at an early stage improved this further.

The Ongoing Development phase was the longest phase of the project. The team followed an agile scrum-based project management approach, defined by two-week sprints and one-week feedback sessions. There was a total of nine sprints between May and November during which the team ingested most of the data sources into the new platform and continued to refine the architecture. By mid-November, nine of the twelve data sources had been ingested, two of which will be ingested in December, and one data source will move to a backlog for 2024.

The team is prioritizing a backlog of tasks that were not achieved during the program, and brainstorming what the next phase of the project might look like, including how to maintain and build internal data engineering and analysis capacity.

**Preliminary backlog and next phase:**

Backlog	Next phase
Ingestion of TikTok and Google SEO data sources	Handover and Girl Effect data capacity building  Develop data pipelines for data deletion and anonymization  Ingestion of Twitter (X), TEGA (new request), RapidPro Messages (new request)

The lessons learnt and the data platform that was developed during this project serves as a foundation for Girl Effect to expand into Machine Learning/Artificial Intelligence (ML/AI) beyond the program. Furthermore, the project revealed capacity gaps within Girl Effect, which, if filled, will benefit further development and expansion of Girl Effect’s data capabilities, and in turn, the potential for impact. Girl Effect sees this project as a stepping stone to even greater reach and meaningful change.

## Project Update

### Girl Effect gained the following insights during the duration of this project.

1. **A complex digital ecosystem requires careful data source integration:** It quickly became apparent that the complexity in Girl Effect's data infrastructure would arise from the large diversity of data sources Girl Effect works with across a complex digital ecosystem. It was important to delineate all touch points within the digital ecosystem to ensure that the data points/metrics that would allow tracking clicks between social media and different products were fully captured in the data infrastructure. Multiple iterations of data pipelines were required to fully encompass the large number of touchpoints across the digital ecosystem.
2. **The need for an interdisciplinary team:** One of the most striking realizations encountered was the importance of assembling a multiskilled, interdisciplinary team. This project required individuals with diverse expertise and knowledge, spanning data engineering, data analysis, compliance, data governance, and human rights to have a deep understanding of the Girl Effect's complex programmatic approach to sexual and reproductive health behavior change. This revelation underscored the critical role of a cohesive and versatile team in addressing complex, multifaceted challenges.
3. **Data governance policies and procedures must be constructed alongside architecture:** Girl Effect appreciated the importance of well-defined data governance policies and procedures and how these are to be embedded in the infrastructure. The ongoing policy creation not only serves as a guiding framework but also as a mechanism to ensure data quality, security, and compliance with a strong fiduciary duty to the users whose data is collected. It's important to think through this early on and ensure the architecture can fulfill these needs.
4. **There is a strong need for capacity sharing:** An essential insight that emerged was the need for capacity building. The project provided a platform for team members to acquire new skills and knowledge of data engineering, analysis, and policy. Continuous learning and development are fundamental to adopting a data-driven approach.
5. **Be considerate about compliance and regulations across jurisdictions:** Another important insight that emerged during the project was the intricacies of compliance and regulations across different jurisdictions and how that might practically be operationalized into an engineering system. As the project involves data from various countries, Girl Effect has the complexity of adhering to potentially multiple and diverse regulatory environments. An adaptable system will be able to meet these needs as they arise later.

## **How might these insights advance the safeguarding of human rights?**

Young people in low - and middle-income countries face significant barriers to accessing sexual reproductive health information and services. Without this vital information and access and knowledge of SRH services, young people could experience negative consequences that may impact their lives far into adulthood, from early pregnancy to the ability to freely exercise their rights over their bodies. Girl Effect aims to challenge harmful SRH norms and stigma and provide valuable and accessible information to young people, thereby empowering them to make more informed choices about their bodies and lives.

By enhancing Girl Effect's ability to collect, manage, analyze, and protect sensitive data, the team can effectively use the data to build more powerful products and design a digital ecosystem of social media, TV shows, radio shows, and other media with a far greater capacity for impact. Girl Effect will now enhance the ability to combine qualitative data from focus group discussions and surveys with quantitative user data directly from people using Girl Effect's products. This will not only allow for a more targeted approach to engage and reach the correct users, but will also help inform product design, strategy, and implementation design. Girl Effect built a strong foundation where safeguarding and diverse disciplines co-exist, while constantly putting our fiduciary duty towards the user at the center of the work.

Further, the data platform serves as a first step towards using Artificial Intelligence and Machine Learning (AI/ML) in Girl Effect chatbots to safely and effectively deliver life enhancing and trusted SRH information that could far surpass current offerings. By better understanding the audience, Girl Effect will be able to deliver this at scale, while still tailoring products to users' specific needs.

## **Girl Effect's future data approach**

### **Streamlined processes**

This data approach allowed teams to develop a deep understanding of the timelines and workloads associated with ingesting data sources across the ecosystem and the complexities associated with each data source. These complexities ranged from the limitations of APIs for certain data sources to the definitions of metrics offered to the best engineering approach for ingesting data sources that required over 1,000 API requests a day. As this was a first experience attempting programmatic data ingestion, there were many obstacles, but this Institutional knowledge will now enable better planning for the expansion of Girl Effect's digital ecosystem. Clear processes around ingesting new data sources and updating existing data sources have been created, allowing for much simpler ingestion and resource planning in the future.

### **Facilitating evidence-based programming**

As the team has improved processes and increased their capacity to ingest, analyze, and make new data sources accessible and readable, Girl Effect has laid the foundation to advance data use across the organization. The data platform has the potential to empower the program and marketing teams to use a more effective data-driven approach to design, implement, and evaluate interventions across Girl Effect's ecosystem of products. Near real-time data may improve the team's abilities to track outcomes, monitor progress, and adjust based on the data.

### **In-house data capacity-building**

The program has strengthened Girl Effect's in-house data capabilities and knowledge, building a robust foundation for further growth, including working towards AI/ML, and developing more personalized approaches to engage audiences. With a skilled and knowledgeable team, Girl Effect is better equipped to meet organizational needs in the future.

### **Improved data policies**

The program served as a springboard for the team to work through developing more comprehensive data policies and procedures and accelerating work on data protection protocols, data safeguarding, deletion requests, and internal data policies. These policies will help guide Girl Effect's future work and positioning around data collection, data use, and data safeguarding.

### **Applying the learnings to other nonprofits facing similar challenges.**

1. Ensure that engineering teams are building alongside analysts, with regular input from data officers, and program and product teams. This process will mean that there will be early discussions around how the data may be used, safeguarded, removed, and anonymized according to the law, and these will be embedded into the architecture of the data platform rather than backtracking and trying to fix these things later.
2. You don't need all the skills and knowledge in-house. The use of technical consultants has benefitted this project enormously.
3. Create a space where diverse voices are empowered to provide input. An interdisciplinary team will be much better placed to come up with creative solutions and ensure the data platform is safe and usable.
4. Building a culture of data use within an organization is hard. Think of creative ways to showcase the ease and power of using data and the platform.
5. Managing organizations data and embedding a data culture within the organizations as early as possible. Don't wait until there is an overwhelming amount of data.
6. Establishing good data practices from the outset. Nonprofits can avoid data-related pitfalls and ensure that data remains an asset rather than a burden.