

THE HARBR ENTERPRISE DATA EXCHANGE PLATFORM

A New Approach to Data Products and Their Use

HARBR HAS CREATED A NEW TYPE OF CLOUD DATA PLATFORM designed to help analysts create, collaborate on, manage and distribute data products. Unlike most cloud data startups, which are taking old ideas and making them work in the cloud, Harbr is doing something new, rooted in the experience of its founders in the business use of data in the enterprise setting.

The Harbr platform promises to enable genuine business breakthroughs via the collaborative use of data and analytics and the implementation of new and advanced ideas about the value, productization and monetization of data.

RECOMMENDATION: Data intensive companies are advised to take a close look at the Harbr platform with an eye to maximizing the value of their investment in data and analytics over the coming decade. ●

ONLY OCCASIONALLY — perhaps once a decade — have I seen an innovation that has obvious business value and embodies genuinely new concepts about data. The Harbr enterprise data exchange platform is such an innovation, delivering a new approach to creating business value in data products, leveraging the experience of the founders as data consumers and cleverly exploiting the capabilities of the cloud to make data products more widely accessible, shareable, secure and usable. These capabilities make it much easier to manage, distribute, use and monetize data products.

Founded by Gary Butler and Anthony Cosgrove a few years ago, Harbr has developed its cloud platform for data product development, distribution and use; brought it to market; and, seen it come into successful use by leading companies in the US and the UK.

I believe this platform is going to have major implications for many data intensive enterprises, changing the process and the economics of realizing value from data and analytic assets.

Why IS it STILL So Expensive and Slow to Actually Use Data?

In the last 20 years we have seen a revolution in the analytic use of data. Professional sports teams hire, manage and play differently because they have become able to analyze detailed data on the performance of athletes to win more games, sometimes while spending



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Methodology

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Purpose and Methodology for this Report

This *WinterCorp Research Note* covers the recent announcement of Harbr and its platform for data collaboration and use. In developing this report, WinterCorp drew on its own independent research and experience, interviewed employees, and analyzed Harbr documentation and literature. Harbr was provided an opportunity to comment on the paper with respect to facts, in its capacity as the sponsor of this research. WinterCorp has final editorial control over the content of this publication and is solely responsible for any opinions expressed.

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less money. A similar story has played out in many industries with respect to the customer experience, the stocking of stores, the efficiency of distribution or manufacturing and the recruitment and management of employees. Entire industries have been disrupted by these changes in a period widely described as the era of analytics.

Though this revolution has been remarkable, it has also been slow and costly from the perspective of an executive wanting to produce business results. Yes, companies have achieved remarkable advances, but the technical aspects of them have been slow, painful and expensive. Working with data calls to mind this account from a Tennessee newspaper after the US Civil War:

They found that war was not all fighting and glory but they had to contend with a thousand different hardships they never dreamed of...

*As one soldier of the Army of the Tennessee said, they found that “**War is just one damn thing after another.**”*

And, that is the way it has been for people with business knowledge to achieve results with data and analytics: just one damn thing after another.

From the flash of insight to the moment of value delivery is a seemingly endless, dreary, painful, expensive, unbelievably frustrating journey through boring problems with finding, sourcing, understanding, cleansing, integrating, applying, sharing, securing, managing and delivering data. And, all the while, the business user or stakeholder is thinking, with all this modern technology we have, “Does it really have to be this way?”

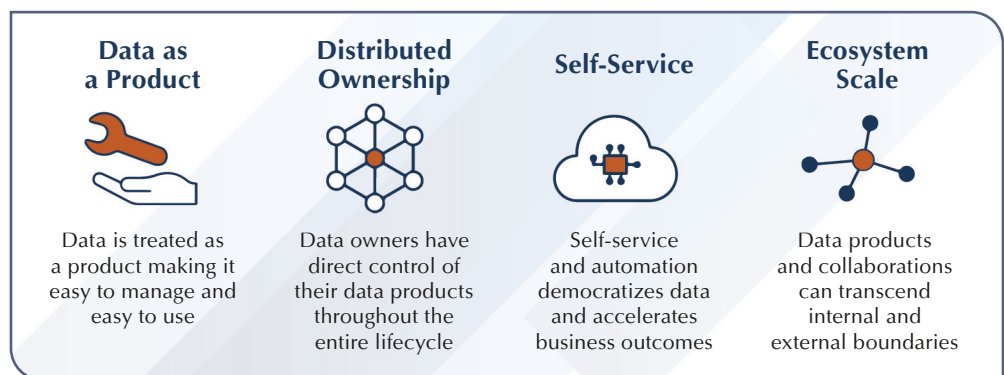
This is the problem that Harbr has attacked.

The Harbr Enterprise Data Exchange Platform

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Harbr has created a cloud data platform for the creation, management and distribution of data products — data packaged with metadata, models, code, documentation and access controls — so that it is readily located, assessed, controlled and consumed. The platform provides special value both to the party

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Source: Harbr

Figure 1: Principles of the Harbr Enterprise Data Exchange Platform

or parties producing the data and those consuming it, shortening the journey to — and lowering the cost of — delivered value via a nicely packaged and integrated set of capabilities. Four of the principles of the Harbr platform are shown in *Figure 1*: treating data as a product, distributing product ownership throughout the community of product managers, self-service for both data providers and data consumers, and implementation at enterprise scale.

Whether used internally or across an extended enterprise — which may include its employees, suppliers, partners and customers — these four principles interact to produce a profound increase in the generation of business value from data.

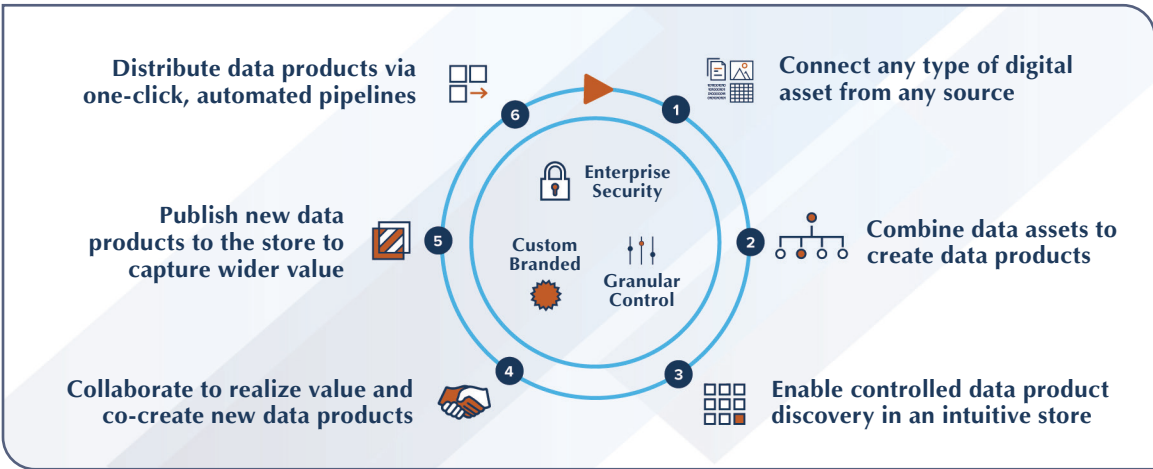
In addition, the Harbr platform does something new by explicitly enabling collaboration in the use of data and analytics. Anthony Cosgrove, co-founder and chief strategy officer at Harbr, points out that suppliers of data nearly always depend on collaboration with their users in order to deliver business value. The supplier has the facilities and skills to collect the data, curate it in some general sense and deliver it to the user. The supplier’s work with the data may also provide it with knowledge about the limitations or anomalies of the data resulting from the particulars of this process. But only the user has the knowledge of how to apply and interpret the data so as to generate business value. And the feedback loop between supplier and consumer is what increases the value of data over time, as well as yielding new insights about where and how it can be used.

So, to an unusual degree, developing value from data depends on this collaboration and feedback loop. The Harbr platform focuses on this collaboration and feedback process, aiming to enable and support it to a maximum degree.

Among the concepts that are particularly well developed in the Harbr platform are:

- **Data products** - curated sets of data packaged with everything needed to realize value from it, including definitions, metadata, models, code and documentation;
- **Publishing** - facilities to prepare and distribute data products simply and efficiently;
- **Exchange** - an intuitive digital storefront to help consumers locate and assess products of interest to a topic, problem or need; can be set up to help providers monetize data;
- **Spaces** - for collaboration, and to make data available for use without losing control of it;
- **Controls** - sophisticated controls to limit, when desired, who may access data; where they can use data; and, what they can do with it;
- **Data product lifecycle** - an explicitly enabled and supported lifecycle for data products, as shown in *Figure 2*, that systematizes and automates the customary steps of data product creation, curation, distribution and consumption.

This combination is a key enabler of broader collaboration around data and analytics. Historically data is often not



Source: Harbr

Figure 2: The Data Product Lifecycle as Enabled by Harbr Data Exchange

shared, even within an enterprise, for fear that the owner will lose control of where it goes, who will use it and how they will use it. Harbr, with its sophisticated and fine grained facilities for collaboration, provides a way to overcome these barriers. The result that the organization as a whole realizes more value from its investment in data and analytics.

In an interview, Anthony Cosgrove told me that he believes there are opportunities to increase fraud detection in the banking system via the sharing of relevant data among parties that otherwise might hesitate to share, such as companies that are competitors or potential competitors. There are frauds that can be detected only by sharing the data. Harbr provides a platform where competitors can share data while still protecting privacy and retaining control. This author believes there are similar opportunities in many other fields.

A Harbr Enterprise Data Exchange Demonstration

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In a recent live demonstration of the Harbr platform, I saw an appealing user interface that was significantly customized as to the role of the user. Everything was clean, easy to understand and readily used by both highly technical and non-technical personnel. (See *Appendix* for Sample UI Screens)

Quite distinct roles are defined for the product manager — someone who understands the data content and is primarily concerned with how to curate, present and offer it for use — and the data technician — someone who is involved in the nuts and bolts of data extraction, preparation and delivery. The product manager is led through a process of set up, packaging, licensing and authorization for the data product. The product manager determines not only what the data product contains and how often it is updated, but also decides who is eligible to license it and where they can use it. The license defined by the product manager can also specify the duration for which data can be used.

As an example, a product manager can decide that Mary Smith can analyze personnel data but only on the Harbr platform within the confines of a certain “space” in which the product manager has decided in advance that only certain tools can be used. In this situation,

Mary may be permitted to analyze and aggregate data but not export it or print it. For sensitive data, the product manager can specify that each license must be approved by a certain individual.

In the demonstration I saw not only how data products are prepared and managed but then how they are presented to a consumer in a self-service exchange. Visitors to the exchange can see what products are available to them; visitors can browse descriptions of the products; if permitted by the product manager, they can browse sample data; and, they can obtain a license to a data product.

Depending on the terms set up by the product manager, a license can involve a fee — such as within a company charge back system or when a vendor provides data to a paying customer. Alternatively, obtaining a license to the data can simply be a matter of establishing that the consumer has the necessary credentials, as would often be the case when the supplier and the consumer are within the same enterprise. Via the exchange, consumers can also obtain ongoing subscriptions to data products that are periodically refreshed with new data.

After a consumer selects and licenses the data products wanted, he or she can then arrange for their delivery. Delivery can be to an authorized space within the Harbr platform or, when permitted, can be to the user’s external system or a particular destination such as an S3 bucket in the cloud. The consumer can exercise control over the format in which the data is delivered and the timing of deliveries, as well as other factors that may bear on the convenience or value of using it.

Product managers are able to monitor who uses each data product, when it is accessed, when it is browsed, where it is delivered, and so on. Product managers are also able to define engineered products that are the result of a curation process, carried out in one or more steps each time the product is refreshed or updated.

In a forthcoming release, it will be possible to define data products that result from running a program or a database query invoked by the platform at the moment of delivery. This enables others — consumers and other product managers — to take advantage of work that has already been done and to do so outside of the organizational unit where this work would otherwise occur.

About WinterCorp

WinterCorp is an independent consulting firm expert in the strategy, architecture and scalability of the modern analytic data ecosystem.

Since our founding in 1992, we have architected and engineered solutions to some of the toughest and most demanding analytic data challenges, worldwide.

We help customers define their data-related business interests; develop their data strategies and architectures; select their data platforms; and, engineer their solutions to optimize business value.

Our customers get business results with analytics in which their return is often ten or more times their investment.

When needed, we create and conduct benchmarks, proofs-of-concept, pilot programs and system engineering studies that help our clients manage profound technical risks, control costs and reach business goals.

With our in-depth knowledge and experience, we deliver unmatched insight into the issues that impede scalability and into the technologies and practices that enable business success.

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Customer Example: Financial Data Provider

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A major financial data provider has adopted the Harbr platform to streamline and enhance its distribution of data to 36,000 customers. With the resulting data exchange, this company can:

- Reduce the time customers spend finding and assessing their products from months to minutes
- Bring customers value-added data management capabilities that set the company apart from the competition
- Offer instant-access, full-volume trials with no loss of data ownership
- Meet customer requests for custom requests and extracts much more quickly
- Help customers create customized data products to meet their specific needs
- Increase cross-selling revenue by increasing visibility to their entire product range

In addition, the company can now collaborate with its customers to unlock new commercial opportunities via joint product development and partnering on the delivery of new value-added services. As a result of the streamlining and cost efficiency derived from the Harbr platform, this financial data provider has also expanded its addressable market to include smaller companies that previously lacked the technical skills or resources to leverage the data.

Recommendation

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CUSTOMERS SEEKING TO BETTER REALIZE the value of data by developing and distributing data products, either within an enterprise or across enterprises, are advised to take a close look at the new Harbr enterprise data exchange platform. Unlike most recent data startups, Harbr has actually brought new ideas and capabilities to the very active market for cloud data platforms. The Harbr platform helps companies create and manage data products, distribute them, monetize them, protect them and continually improve them. What's more, it provides a safe space for collaboration among entities — even competing companies — for attacking problems in their common interest via shared data and analytics.

Harbr offers enterprises a new opportunity to harness the value of their data and analytics — and to create new and unique solutions via collaboration — as they move into the 2020s, likely the most data intensive decade in history. ●

Appendix

The screenshot shows the 'Publish' page in the Harbr Data Exchange interface. At the top, there's a navigation bar with 'Products' and 'Spaces' dropdowns, a search bar, and user information. Below the navigation bar, a breadcrumb trail reads '← Publish / Data product name goes here'. A progress bar indicates the current step is 'Package' (6/6), with previous steps 'Set up', 'Source', 'Review', 'Schema', and 'License' all completed. The main form area includes an 'Icon' field with a 'SYNTHETIC DATA CREATED' placeholder, a 'Title' field with the value 'Financial Ecosystem', and a 'Description' field with a rich text editor. Below these are 'Date range' fields for 'Set start date' and 'Set end date', and a 'Package visibility' section with radio buttons for 'All', 'Organizations', and 'Users'. A dropdown menu for 'Organizations' is also present. At the bottom right, there are 'Back' and 'Publish' buttons.

Figure 3:
Defining a
Data Product
in the Harbr
Data Exchange
Source: Harbr

The screenshot shows the consumer view of the Harbr Data Exchange. On the left, a sidebar titled 'You have selected:' lists categories: Category 1.1, 2.1, 2.6, and 3.2. Below this is a filter section with checkboxes for various categories. The main content area is a grid of data product cards. Each card displays an icon, an organization name, a title (e.g., 'Financial Ecosystem', 'Telecoms Ecosystem', 'EU Company Directors'), a description, and a list of categories. The cards are arranged in a grid that changes based on the selected filters.

Figure 4:
A Harbr Data
Exchange as
Viewed by the
Consumer
Source: Harbr

Appendix

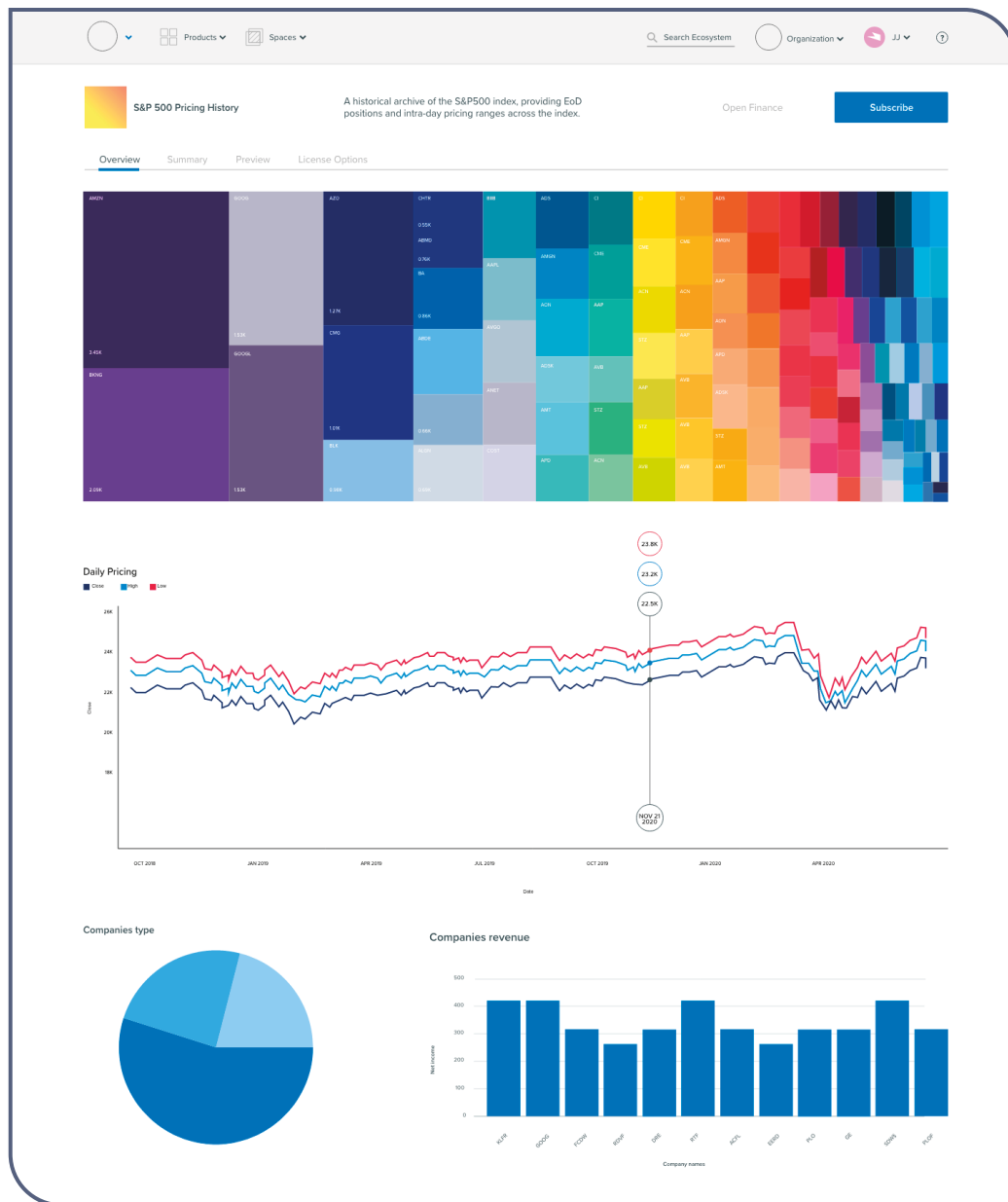


Figure 5:
Example
of a Data
Product Page
Source: Harbr
Harbr Data
Exchange
Screenshot