DEEP DIVE

Data Trusts

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Data Trusts

At-a-Glance

- A mechanism in which individuals can pool their data or data rights.
- An independent data steward is tasked with upholding the data rights for the benefit of its members (it ideally has no vested interest in accessing the data).
- The governance model creates fiduciary duties for trustees (stewards)—codified in policy and protocol—drawing from the common law conception of trusts.
- Trustee(s)[1] can collectively negotiate on behalf of the members.
- The purposes and objectives guide the trustee to make decisions regarding the data.

A data trust is a legal structure that provides independent stewardship of data.[2] It allows for two or more parties to state their interests, needs, expectations, and desired outcomes for data use and to mandate a trustee to pursue these aspirations in the interest of specified beneficiaries. Almost any right can be held in trust, so long as the trust meets these conditions.

In creating a data trust, the party that initiates the trust is a "grantor," establishing it with the donation of an asset. Typically, the grantor is neither the trustee nor the beneficiary (though it's possible they may fit into a broad beneficiary class). The trustees are the managers, who may exercise discretion within conflict of interest limitations, and beneficiaries, who benefit from the exercise of the trust's assets (or at the end of the trust).

Trustees are required to act with undivided loyalty and dedication to the interests and aspirations of the beneficiaries. The strong safeguards this provides create a foundation for data governance that gives data subjects confidence that their data rights are being managed with care. It's also possible to build data trusts with the intention to delegate to the data trustee the responsibility to determine what type of data processing is to the beneficiaries' interest.

The exact definitions of data trusts, their structure, accountability mechanisms and the roles of trustees remain varied in their implementation. As a method of governance, examples of data trusts are fewer than other models, and among the sparse implementations, there are fewer precedents to draw from. Additionally, data trusts are given effect by different governments with differing legal systems and interpretations, and the same is true for other organizational forms (e.g., corporations).

1. In a data trust, the person or party managing the trust is the trustee. Throughout the main report and in other deep dives, we discuss "data stewards" as the role most directly managing the governance structure.
2. Open Data Institute. (2018). Defining a "data trust."

Data collaboratives in agriculture

While data trusts hold a lot of potential, their application is far newer than other governance models, leaving few applications for case studies.

- In February 2020, Australia's National Farmers' Federation launched the Australian Farm Data Code, with the goal of giving farmers greater confidence in how their data is collected, used, and shared. The Code is intended to inform the policies of service providers who manage data on behalf of farmers and be a means by which farmers can evaluate the policies of providers.
- The Global Partnership on Artificial Intelligence (GPAI) co-designed a data trust for Indian farmers (in a broader context about farming's impact on climate).

Why data collaboratives matter

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- **Increased accountability.** In establishing a trust, the trustee's responsibilities are outlined as fiduciary duties, ensuring that only the trustee makes decisions regarding the user's data that are in the best interests of them, and those interests are bound to legal agreements and specifically tied to governance structures.
- **Consent management.** Data trusts address the limitations of other consent mechanisms that cannot offer users meaningful control over their personal data. In regions and cases where farmers lack the means or experience to effectively manage their personal data, and with assurance that their personal data remains private, data trusts specify the means in which access to personal data is granted under legal agreements.
- **Informed consent.** Capturing informed consent—where farmers genuinely understand who may have access to their data, how, how often, and for what purposes—is incredibly difficult. As smallholder farmers in any setting are not a homogenous collective, meeting the needs of each individual farm when it comes to access to technology, connectivity, electricity, or their own digital literacy makes for uneven data-driven programs, and thus uneven benefits. By appointing a trustee, meeting those needs is consolidated to a manageable point of contact, who may then disseminate information and benefits on a more personal and bespoke basis.

Key components for success

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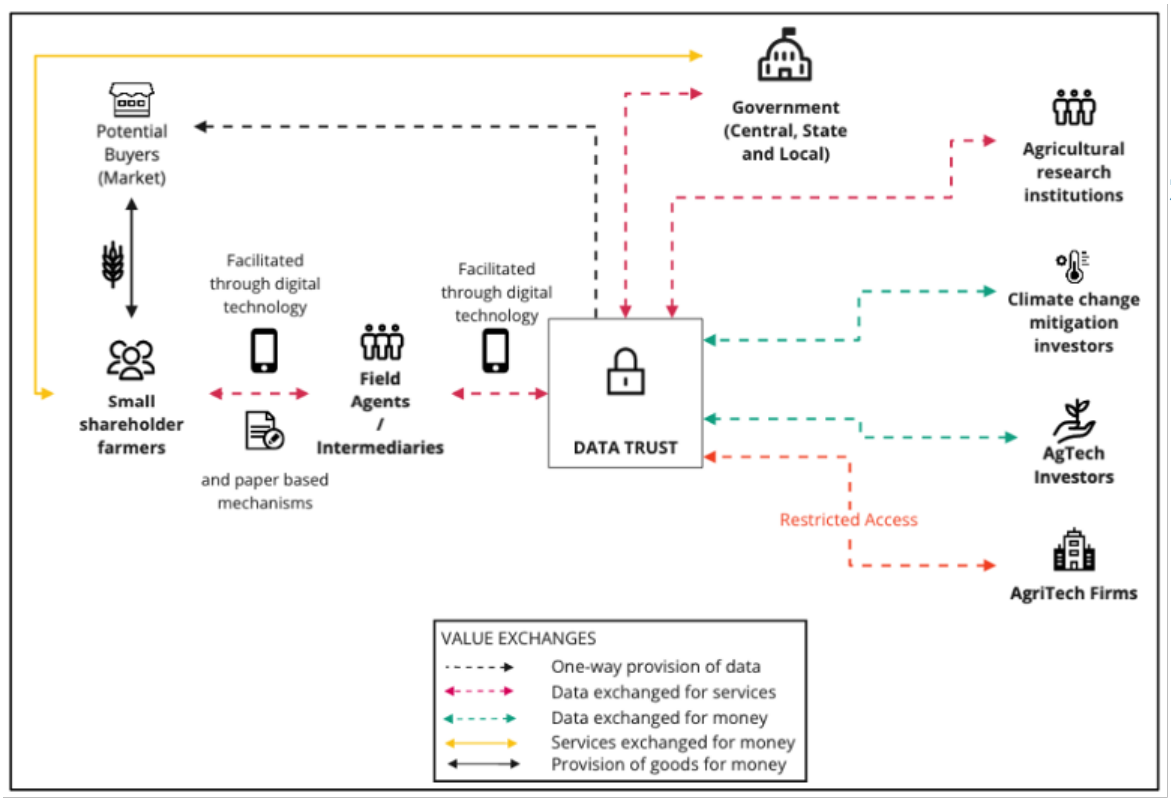
- **Leverage existing trust networks.** While the trustee's responsibilities are carefully outlined in the terms of the agreement, leveraging leadership from existing trust networks (such as a farmer producer organization [FPO] or local cooperative) can further build confidence among farmers, as beneficiaries of the trust, that their interests are secured.
- **Technology.** Managing a trust—even a data trust—does not require technology, and incorporating technology into the trust's management should receive the same scrutiny as when considering any technology to support smallholder farmers. However, virtualizing decision-making can build efficiency in not only how decisions are made but tie the trust's decisions directly to how data is distributed, including facilitating more decentralized models where farmers remain as data controllers.
- **Consider the legal landscape.** In establishing the trust, the legal agreement between parties may act to address gaps in the regional or national legal structure. There are obvious, valid ways to transfer representation rights, and the physical brokerage of data access accompanied by data contracting is more than enough to establish valid claims. Additionally, agreements may acknowledge and align with interests from parties beholden to national or international law, such as General Data Protection Regulation (GDPR).



3

3. The Global Partnership on Artificial Intelligence (GPAI). (2022.) Enabling Data Sharing for Social Benefit Through Data Trusts: Data Trusts in Climate.

Challenges/pitfalls of the data trust approach

- **Jurisdictions that do not legally recognize data trusts.** Deploying a data trust in jurisdictions that do not legally recognize them fails where they cannot establish their fiduciary obligations based on specific national or regional laws. Even within common law jurisdictions that recognize legal trusts, it is unclear whether managing data and data rights fit the property/subject matter requirements within the formal framework of a trust.

- **Trustees play a crucial role in the success of the trust.** Data trustees are tasked with stewarding the assets managed in a trust on behalf of its beneficiaries. In a "bottom-up" data trust, the beneficiaries are the data subjects (whose interests may include research facilitation, etc.). Data trustees will have a fiduciary responsibility to exercise (or leverage the beneficial interest inherent in) their data rights. Data trustees may seek to further the interests of the data subjects by entering into data-sharing agreements on their behalf, monitoring compliance with those agreements or negotiating better terms with service providers.

- **Purpose of the trust and consent.** Trusts are usually established for defined purposes set out in a constitutional document. The data subjects define the purposes of data use or will need to adhere to an established data trust and be well-informed about the purposes of the trust and how data or data rights are handled. In either case, it is of the utmost importance that those joining a data trust can do so in full awareness of the trust's terms and aims.

- **The role of the trustee.** The trustee will be in charge of managing the relationship between the trust's beneficiaries and the organizations the trust interacts with. Trustees will have a duty of undivided loyalty to the beneficiaries (understood here as the data subjects whose data rights they manage), and they would be responsible for skillfully negotiating the terms of use or access to the beneficiaries' data. They could also be held responsible if terms are less than satisfactory or if beneficiaries find fault with their actions.

- **Existing power imbalances.** The imbalances of power or ability of individuals and groups to act in ways that define their own future create a data environment that is in some ways akin to the feudal system, which fostered the development of trust law. Powerful actors are able to make decisions that affect individuals, and even if those actors are expected and commissioned to act with a duty of care for individual rights and interests, said individuals have limited ability to petition these structures to adapt to their interests.

- **Misaligned incentives.** To prevent "regulatory capture" of trustees—in other words, to prevent trustees acting in the interest of special interest groups involved in the trust rather than the trust itself that is meant to regulate them—data trusts incentivize the trustees. However, it needs to be balanced to ensure that the independent functioning of a data trust does not depend on overexploitation of data. External parties may be interested in the data trust to facilitate access to farmers' data in return for information regarding educational materials or data-driven recommendations for sustainability. In contrast, the farmers may want this to contribute to access to capital or new markets for their produce. Failing to capture that incentive could influence what data is recorded and shared, and creates imbalances in how much the trust returns value for some parties versus others.

- **When the data trust is treated as a product that supplants existing cooperatives instead of supporting them.** Data trusts are relatively new to this space in the sense of their attention as a means for a more effective and structured form of governance over personal and aggregate data. Effective implementation means integrating the rules and regulations of the trust into the existing cooperatives or collectives and likely transitioning existing leadership into the role of the data steward(s). All of this requires a deep understanding of their current rules and roles and integration of the trust not as a wholesale model but where it helps.

- **Scope.** One of the core tensions in trust design is how narrowly the purpose of the trust (i.e., the thing the assets are meant to be used toward) is defined and how diverse or specific beneficiaries' interests can be (i.e., the same data subjects at one stage of treatment development are aligned, but later in the same process, they become adversarial). In this way, a trust can broker data "in the beneficiaries interests" in the beginning, but not later stages.

Crucial applications in Low- and Middle-income Countries (LMICs)

- By leveraging the negotiating power inherent in pooled data rights, the data trustee becomes a powerful voice in contract negotiations and is better placed to achieve favorable terms of data use than any single individual. In so doing, the role of the data trustee would be to empower the beneficiaries, widening their choices about data use beyond the "accept or walk away" dichotomy presented by current governance structures. This role would require a high level of skill and knowledge, and support for a cohort of data trustees would be needed to ensure they can fulfill their responsibilities.
- In countries and regions where there are many common barriers to effective uses for data—including but not limited to digital literacy, mobile connectivity, and access to mobile devices—the appointment of a trustee and scope of agreements within the trust passively acknowledge these issues and provide a realistic means to consolidate communications. Trustees can more aptly meet the beneficiaries where they are in terms of accessing and understanding requests for their data, while bringing more efficiency to other parties in more manageable communication and streamlined agreements to the other parties.

Financial viability / sustainability

Data trusts introduce a format that is well equipped to become a foundation for introducing new financial opportunities to farmers as its beneficiaries. There are a number of possible funding models for data trusts:

- privately funded
- publicly funded
- charging a fee or subscription from data trust beneficiaries (the individuals or data subjects) in return for streamlining and/or safeguarding their data interactions
- charging a fee or subscription from those who use the data (organizations)
- charging individuals for related services
- a combination of the above

The different funding options have their own implications. If the trust generates revenue by charging for access to the data or related services, the focus might gravitate towards the viability and performance of the trust. Its performance may correlate strongest with the demand versus as a rebalancing tool for adjusting power asymmetries and consolidating the position of vulnerable people. In addition, if potential income streams are maximized depending on the data use, attention toward maximizing those returns could begin to erode personal privacy and data protection.

How can stakeholders create an enabling ecosystem for data trusts?

By connecting the aspiration to share data to structures that protect individual rights, data trusts can provide alternative forms of "weak" democracy[4] or new mechanisms for holding those in power to account. As a data trust matures, it stands to encounter new questions about the limitations of existing rights and what happens when different rights interact. The trust's founding charter specifies which data should be recorded, how data rights are exercised, and how the trust manages its assets. Mechanisms for deliberation or consultation with beneficiaries could also be built into a trust's founding charter, with the form and function of those mechanisms depending on the objectives and intentions of the parties creating the trust. The flexibility offered by trusts creates a governance system that is able to adapt to shifting patterns of data use. A range of subject matters or application areas could form the basis of a trust, allowing trusts to be established according to need; trusts would therefore allow co-evolution of patterns of data use and regulation.

For example, organizations can analyze aggregated datasets and create profiles of individuals, generating inferences about their likely preferences or behaviors. These profiles, created as a result of data analysis and modeling, would typically be considered the intellectual property of the entity that conducted the analysis or modeling. While input data might relate to individuals, once aggregated and anonymized to a certain extent, it would no longer be considered as personal data under the GDPR. However, if inferences are classified as personal data within the scope of the GDPR, individual data-protection rights should apply. Nevertheless, as some authors have explained, exercising data rights on inferences classified as personal data remains limited and, particularly in the case of data portability, could give rise to different tensions with trade secrets and intellectual property.

The development of data trusts requires further clarity on how these rights can be exercised. There is already active work on the extent to which (and conditions according to which) those positive rights may be mandatable to another party to act on behalf of an individual, such as a trustee. Opinions on the issue differ among GDPR experts, and publication of the European Commission's draft Data Governance Act raises new questions about how and whether data rights might be delegated to a trust in the EU context. The feasibility of data trusts, however, does not hinge on a positive answer to this delegability question, since trust law offers a potential workaround that does not require any right transfer.

Almost any right or asset can be placed in trust. Trusts have already been established for rights relating to intellectual property and contracts, alongside a range of different types of property, including digital assets, and have proven themselves to be flexible in adapting to different types of assets across the centuries. Understanding what data rights can be placed in a trust, when those rights arise, and how a trust can manage those rights will be crucial in creating a data trust. Further work will be required to analyze the sorts of powers that a trustee tasked with stewarding those rights might be able to wield and the advantages that might accrue to the trust's beneficiaries as a result.

Typically, assets placed in trust have value at the time the trust is created. In contrast, modern data

4. A weak democracy is defined as where the democratic structures exist within an established system of governance but do not function effectively.

practices mean that data acquires value in aggregate; it is the bringing together of data rights in a trust that gives trustees power to influence negotiations about data use that would elude any individual. Whereas property is typically placed in trust to manage its value, data (or data rights) would be placed in trust in part to create value.

The fiduciary duties owed by trustees to beneficiaries can be achieved by other legal models. For example, contractual frameworks or principal-agent relationships can create duties between parties, with strong consequences if those duties are not fulfilled. Regulators can also perform a function similar to fiduciary responsibilities, for example, in cases where imbalances of market power might have detrimental impacts on consumers. However, each has its limitations.

In India, this model has been recommended in the Non-Personal Data Governance Framework (NPDR). The policy reiterates the use of data from the agricultural sector as a prime example of "high value data sets"—data that must be "extracted" in order to promote innovation in the economy. Communities can exercise control over their data through the "data trustee," which can be a government body, a not-for-profit organization, or a group where community members come together to make decisions. The data trustee model in the NPDR does not appear to be not a viable option for many reasons. To begin with, the policy does not define what constitutes a "community." If the trustee is a government body, there is a possibility of a conflict of interest when it comes to making decisions on data sharing for governance purposes—should community interests be prioritized over national interest or vice versa? The NPDR provides little visibility on the working of data trustees and must ensure more clarity on their role before finalization of the policy.

PLACE is a technology organization formed from the Omidyar Network with a mission to map the urban world in ultra-high resolution and make these maps open, reliable, and accessible. In addition to the technical need, the organization recognized the need for a new model of data infrastructure to serve the public interest. The operational entity that is PLACE therefore created PLACE Trust, a permanent legal data trust that holds all PLACE data and licenses received from governments, in perpetuity. All data produced in partnership with PLACE belongs to the government of each country. PLACE receives from each government an irrevocable, perpetual, royalty-free license to a copy of all data and its use by PLACE members through the PLACE Trust. Their trust issues licenses for use of this data by their members. PLACE Trust is overseen by an independent board of trustees selected for their commitment to the mission, as well as their experience and know-how related to the trust and its purpose.

Agri-Gaia represents a decentralized infrastructure for the exchange of data in agriculture to build an ecosystem for the small and mid-sized enterprise (SME) agricultural and food industry, based on Gaia-X, offering domain-specific technologies, such as cross-industry identity management and semantic description of data formats. Agri-Gaia enables farmers to move their data freely between different cloud platforms and use them economically themselves.