Trees and Technology

Trees are People Too:
Tracking Trees Through a CRM

Speak for the Trees
Boston

PRESENTED BY:

David Meshoulam

Executive Director, Speak for the Trees, Boston
treeboston.org
david@treeboston.org

ALLIANCE FOR COMMUNITY TREES

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So, you've planted your tree...

So, you've planted your tree...

What Now?

What Now?

Watering

Pruning

And more!

rting

Engaging

Tracking Trees
Option 1: A Simple Spreadsheet

		Container			
5/31/24	Cornus florida	Balled & Burlaped	Weston Nurseries	42.30937	-71.0458
5/22/24	Cornus florida	Container	Weston Nurseries	42.23401	-71.129982
5/22/24	Liriodendron tulipifera	Container	Weston Nurseries	42.2339	-71.12968
5/22/24	Magnolia virginiana	Container	Weston Nurseries	42.23403	-71.12978
5/23/24	Liriodendron tulipifera	Container	Weston Nurseries	42.23738	-71.12886
5/23/24	Magnolia virginiana	Container	Weston Nurseries	42.23723	-71.12881
5/23/24	Gleditsia triacanthos	Container	Weston Nurseries	42.23742	-71.12868
5/29/24	Cornus florida	Balled & Burlaped	Weston Nurseries	42.29203	-71.07497
10/4/24	Cornus florida	Container	Weston Nurseries	42.2651	-71.09762
10/3/24	Cornus kousa	Container	Cavvichio Greenhouses	42.27176	-71.06823
10/3/24	Cercis canadensis	Container	Cavvichio Greenhouses	42.27188	-71.06819
10/8/24	Cornus kousa	Container	Weston Nurseries	42.32614	-71.0826
10/1/24				42.27096	-71.1047
9/24/24				42.3256	-71.08106
9/24/24				42.32571	-71.08123
10/8/24				42.27695	-71.08821
10/8/24				42.27708	-71.08849
9/24/24				42.25349	-71.11434
10/2/24				42.24036	-71.12495
10/2/24				42.24052	-71.12497
10/2/24				42.24045	-71.12497
10/1/24				42.38329	-71.01528
10/1/24				42.38333	-71.01518
10/1/24				42.38338	-71.01505

Tree Info

Tracking Trees and People
A More Complex Spreadsheet

	▼	Container ▼						▼	
5/31/24	Cornus florida ▼	Balled & Burlaped ▼	Weston Nurseries	42.30937	-71.0458	Farida	Davis	18 Fox Point Rd	Dorchester ▼	02125
5/22/24	Cornus florida ▼	Container ▼	Weston Nurseries	42.23401	-71.129982	Jo-Ann	Bergantino	44 Colchester St	Hyde Park ▼	02136
5/22/24	Liriodendron tulipifera ▼	Container ▼	Weston Nurseries	42.2339	-71.12968	Jo-Ann	Bergantino	44 Colchester St	Hyde Park ▼	02136
5/22/24	Magnolia virginiana ▼	Container ▼	Weston Nurseries	42.23403	-71.12978	Jo-Ann	Bergantino	44 Colchester St	Hyde Park ▼	02136
5/23/24	Liriodendron tulipifera ▼	Container ▼	Weston Nurseries	42.23738	-71.12886	Preditta	Cedeno	20 Riley Rd	Hyde Park ▼	02136
5/23/24	Magnolia virginiana ▼	Container ▼	Weston Nurseries	42.23723	-71.12881	Preditta	Cedeno	20 Riley Rd	Hyde Park ▼	02136
5/23/24	Gleditsia triacanthos ▼	Container ▼	Weston Nurseries	42.23742	-71.12868	Preditta	Cedeno	20 Riley Rd	Hyde Park ▼	02136
5/29/24	Cornus florida ▼	Balled & Burlaped ▼	Weston Nurseries	42.29203	-71.07497	Indy	Robinson	76 Whitfield St	Dorchester ▼	02124
10/4/24	Cornus florida ▼	Container ▼	Weston Nurseries	42.2651	-71.09762	Cherill	Roberts	20 Malta Street	Mattapan ▼	02126
10/3/24	Cornus kousa ▼	Container ▼	Cavvichio Greenhouses	42.27176	-71.06823	Catherine	Infantino	1231 Adams St	▼	02125
10/3/24	Cercis canadensis ▼	Container ▼	Cavvichio Greenhouses	42.27188	-71.06819	Catherine	Infantino	1231 Adams St	▼	02125
10/8/24	Cornus kousa ▼	Container ▼	Weston Nurseries	42.32614	-71.0826	Alisa	Pimentel	8 Moreland Street	Roxbury ▼	02119
10/1/24				42.27096	-71.1047	Ca				
9/24/24				42.3256	-71.08106	Je				
9/24/24				42.32571	-71.08123	Je				
10/8/24				42.27695	-71.08821	Fa				
10/8/24				42.27708	-71.08849	Fa				
9/24/24				42.25349	-71.11434	Ro				
10/2/24				42.24036	-71.12495	La				
10/2/24				42.24052	-71.12497	La				
10/2/24				42.24045	-71.12497	La				
10/1/24				42.38329	-71.01528	Mil				
10/1/24				42.38333	-71.01518	Mil				
10/1/24				42.38338	-71.01505	Mil				

Tree Info

Person Info

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Spreadsheets

Advantages	Disadvantages
Easy to set up	Cumbersome
Do not require much training	Separate data don't "speak" to each other
Easy to read	Difficult to track data over time
	Reporting can be hard

At some point, you *will* max out on spreadsheets

Databases are different

They store data differently

- Spreadsheets store data in cells inside a grid of rows and columns while *databases store data in records that come from external tables*

They are structured differently

- Spreadsheets are static (although they can have formulas) while *databases are relational and can be more flexible*

They have different uses

- Spreadsheets are for smaller datasets, calculations, and visual data while *databases are better for complex data, data integrity, and collaboration.*

Constituent Relationship Manager (CRM)

Constituent

Where and what is a tree?

Types of Connections

- - - - - -

Activities:
things people "do"
static

————————
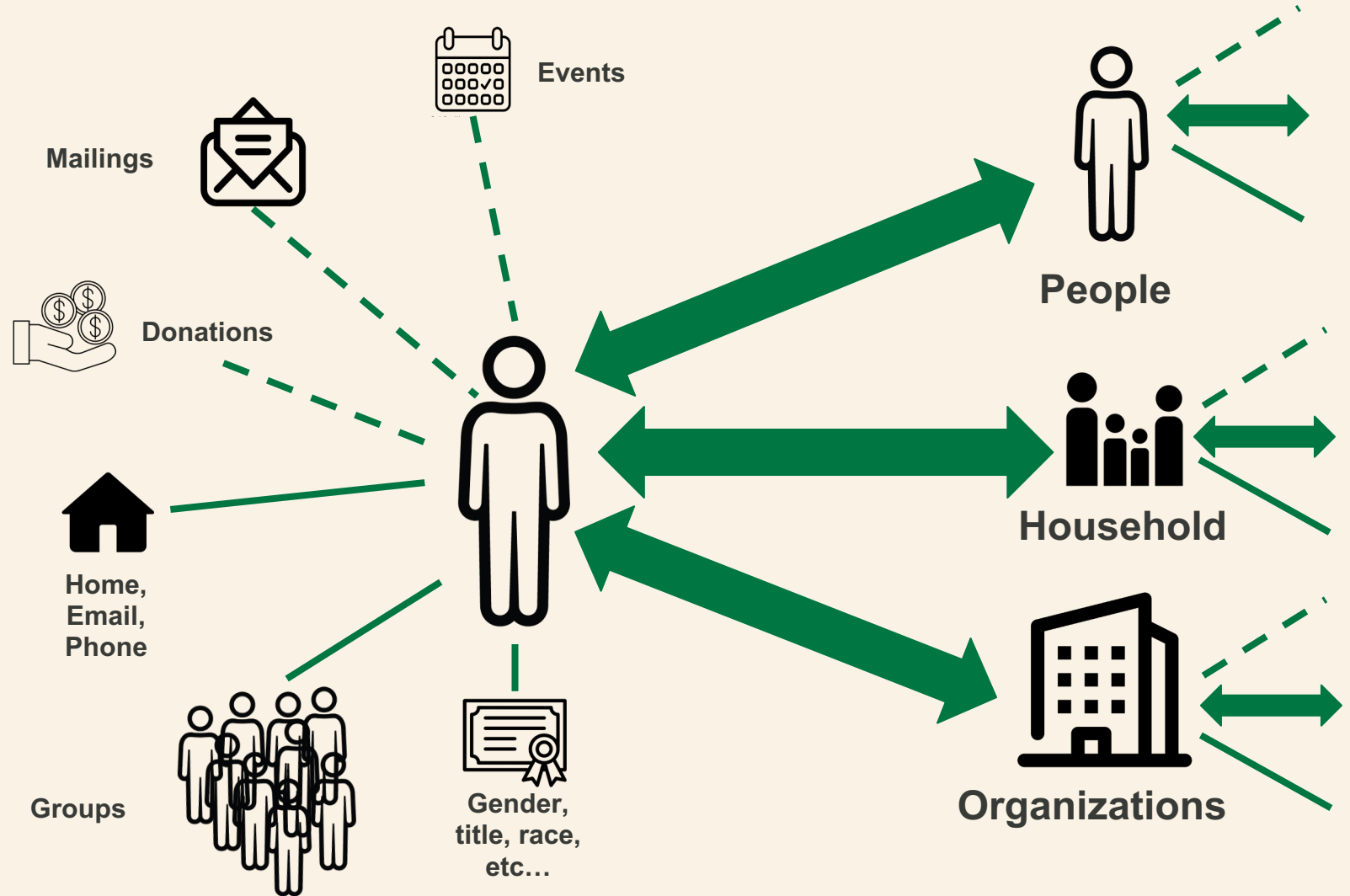
Characteristics
info, traits, groups

Relational:
dynamic and
changing
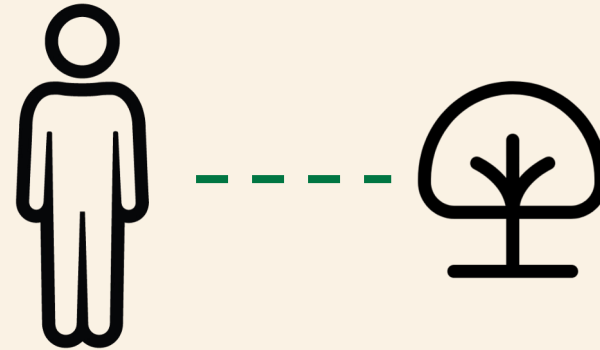
First go: As an activity

- Someone receives or plants a tree: something they "did"
- Simple and easy
- Captures the way we think about trees and engagement
- *However…*
  - The tree is always connected to a person and moves with the person
  - The tree can not have its own relationships or activities
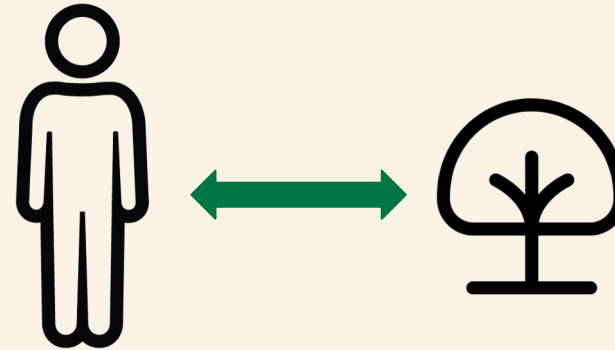
Where and what is a tree?

Types of Connections

- - - - -

Activities:
things people "do"
static

―――

Characteristics
info, traits, groups

⬌

Relational:
dynamic and
changing

Second Go: As a Relationship

- A tree is a "person"
  - Has activities, relationships, traits
- Can have multiple relationships
- Dynamic and changing

Trees Are People Too

People
Own address
Own actions
Own characteristics
Relationships (spouses, children, work)

Trees
Own address (lat/long)
Own actions (watering, pruning)
Own characteristics (Species, age)
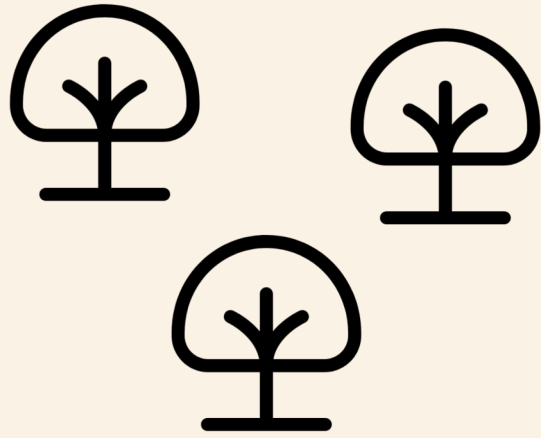Relationships (nursery, planter, adopter)
Types (giveaway, private, public)

Practical Implications

Making trees as people allows for:

- Easier tracking
- Robust searching and reporting
- Multiple characteristics and activities that belong to the tree
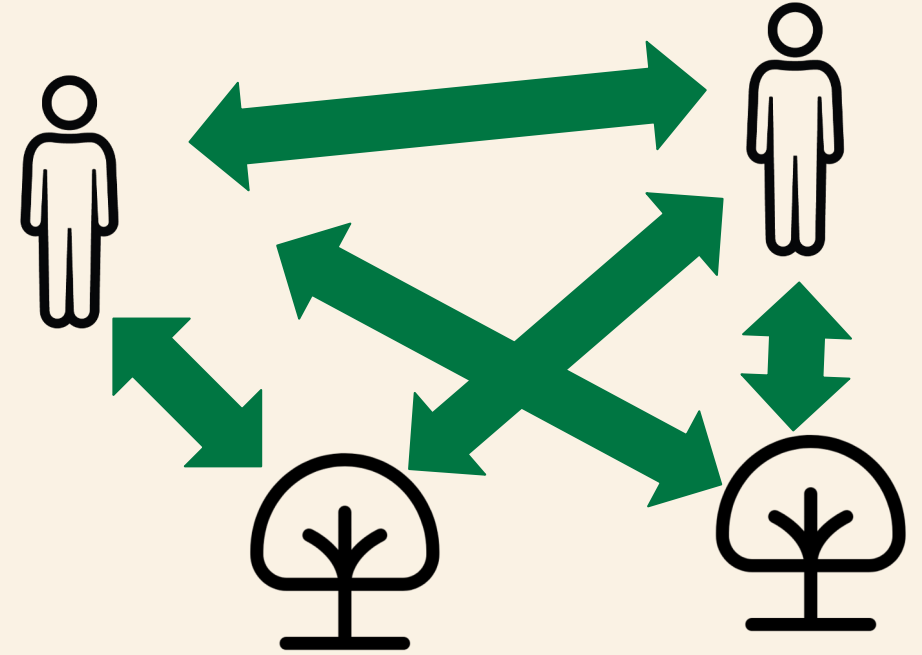- Explicit and nuanced connections across data sets

Also Shifts Our Thinking

Trees as Objects

They exist out there, isolated and separate from us

Trees as Relationships

They are networked and connected within an ecosystem

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Which brings us back to

Fractals (n.)

A shape, often mathematically defined,in which
each part has the same statistical character as the whole.

Similar relationships and patterns recur across scales.

Trees Are Fractals on Many Scales

Adobe Stock | 740503630

And so are our relationships

Just like a branching tree's shape,
our relationships to trees, nature, and each other are fractals.

These relationships repeat across scales of time, space, and scale:
- with ourselves
- with each other
- with our community
- with the universe

Takeaway

Data structure matters

THANK YOU

**David Meshoulam
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Speak for the Trees, Boston**
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david@treeboston.org

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