Consistent Enterprise Navigation

Transforming 2 billion underutilized parking spaces into productive environments

JOHN DEERE & COMPANY

Role: UX Lead Designer; Digital Customer Experience

Challenge: Create unified digital navigation across a fragmented global enterprise

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OVERVIEW

John Deere and Company is a global enterprise comprising several independent brands, some relatively recent additions to the 184-year-old manufacturer.

The business model: B2B2C
John Deere sells through local dealers, not directly to customers. This creates a complex digital ecosystem where corporate, dealer, and customer experiences all need to work together.

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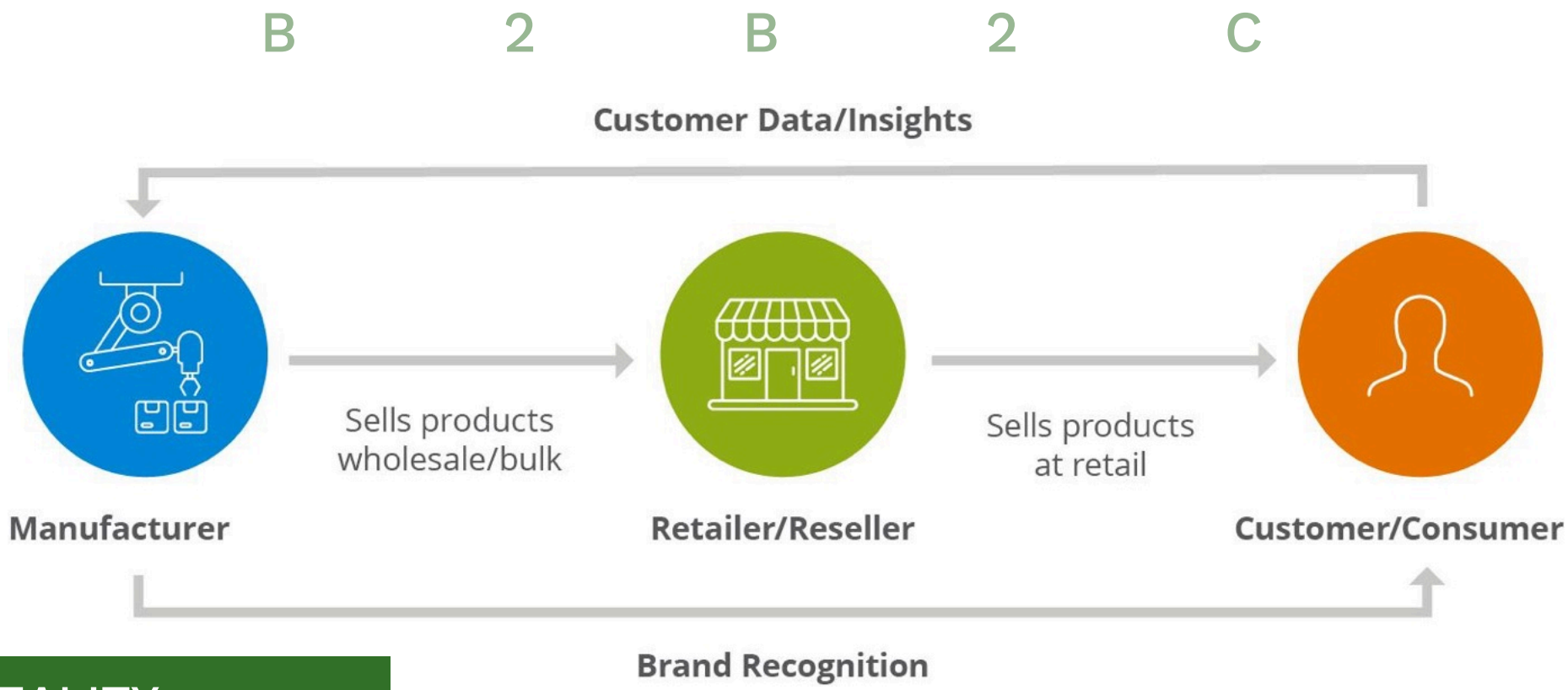

REALITY

The company's entire product offering is bespoke by necessity.

- Road builders don't buy combines.
- Landscapers don't need mining equipment.
- Construction crews don't use precision agriculture technology.

Each product line serves distinct customers with distinct needs.

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PROBLEM

The digital experience was fragmented, mirroring internal organizational silos.
This fragmentation was exacerbated by internal silos, mostly due to the bespoke nature of the product offering.

Each division developed its own digital properties:

- Agriculture division: Had its own website, dealer portal, customer apps
- Construction division: Separate digital ecosystem with different navigation patterns
- Turf division: Yet another set of digital properties with its own information architecture
- Forestry, road building, mining: Each with their own isolated digital experiences

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PROBLEM

The customer problem:
A landscaping company that uses both turf equipment and small construction equipment had to navigate completely different digital experiences. A dealer carrying multiple product lines had to learn different systems.
An employee moving between divisions had to relearn everything.

The business problem:
No consistent brand experience. Duplicated development effort. Impossible to share learnings or tools across divisions. Customer confusion when they needed products from multiple lines.

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Requirements

A global digital navigation was needed to create a consistent experience, one that would work across product lines and regions. This wasn't just about making things look the same. The navigation system had to:

Work across product lines (Each with their own terminology, customer types, and use cases):

- Agriculture (tractors, combines, planters)
- Construction (excavators, loaders, bulldozers)
- Turf (mowers, utility vehicles)
- Forestry (harvesters, forwarders)

Work across regions:

- North America, Europe, Asia, South America
- Different languages, different dealer structures, different regulatory requirements
- Different levels of digital adoption and connectivity

Work across user types:

- End customers researching and buying equipment
- Dealers managing inventory and customer relationships
- Service technicians accessing repair information
- Corporate employees managing operations

Accommodate different contexts:

- Marketing websites (product discovery)
- E-commerce platforms (parts ordering)
- Service portals (maintenance and repair)Data platforms (Operations Center and similar tools)
- Dealer management systems

The constraint:

This had to work with existing systems. We couldn't rebuild everything at once. The navigation had to be modular enough to layer onto diverse existing architectures.

Agile Software Development | **Manufacturing Waterfall Reality**

Constraints
Making this happen meant working within the constraints of manufacturing reality as much as it was about working across teams and stakeholders.

The fundamental challenge:
Software teams wanted to iterate. Manufacturing operates on multi-year product cycles.
- New tractor model announced 18 months before production
- Marketing materials, dealer training, website content all have to align with launch
- Can't "iterate" on a combine harvester the way you iterate on a website
- Product specifications locked months in advance, but digital experiences needed flexibility

Technical constraints:
- Legacy systems built over 20+ years
- Different content management systems across divisions
- Different hosting environments and IT governance structures
- Different development teams with different tech stacks

Organizational constraints:
- Each division had its own marketing team, its own priorities
- Budget approval processes differed by division
- Some divisions were recent acquisitions with their own established digital presences
- Global vs. regional decision-making authority varied

Political constraints:
- Existing vendor relationships and contracts
- Fear that unified navigation would dilute division-specific identity

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Process
Working iteratively with stakeholders, leveraging prototypes, we found the right information architecture.

Research and Discovery
I started by understanding the current state and user needs:

Competitive analysis:
Studied how other multi-brand enterprises (GE, Caterpillar, Siemens) handled global navigation.

User interviews (n=32):
- Equipment owners who used multiple product lines
- Dealers carrying multiple divisions
- Service technicians working across equipment types
- Internal employees who worked cross-divisionally

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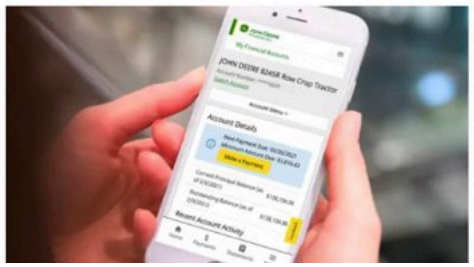

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Process

Analytics review:
Where were users getting lost? What were common cross-divisional pathways? Where did navigation break down?

Stakeholder workshops:
Brought together representatives from each division to map current information architectures and identify commonalities.

Key findings:
Finding 1: Mental models differed by user type, not product line
Customers thought about "my equipment" regardless of division. Dealers thought about "my customers" regardless of what they bought. But divisions thought about "our products."

Finding 2: Search and context mattered more than perfect hierarchy
Users didn't care about organizational structure. They needed to find specific information quickly. Good search
and contextual navigation mattered more than perfect categorization.

Finding 3: Local dealer connection was the universal need
Regardless of product line or region, users wanted easy access to their local dealer. This was the one thing that
transcended all divisions.

Design Strategy

I developed a flexible navigation framework that could adapt to different contexts while maintaining consistency:

Three-tier architecture:

Global tier (consistent everywhere):
- John Deere brand mark and home link
- Universal search
- User account access
- Dealer locator
- Language/region selector

Division tier (consistent within divisions):
- Product line-specific navigation
- Division-specific terminology
- Category structures that made sense for that product type

Local tier (contextual):
- Page-specific navigation and actions
- Related content and cross-links
- Context-sensitive help

This allowed divisions to maintain their identity while providing consistent global navigation elements.

Design Strategy

Prototype and Iterate
Rather than designing in isolation, I used prototypes to work through stakeholder concerns:

Round 1: Lo-fi wireframes
Tested basic structure with internal stakeholders. Exposed fundamental disagreements about hierarchy and terminology.

Round 2: Interactive prototypes
Built clickable prototypes showing how navigation would work across different product lines. Let stakeholders
experience the system, not just review static designs.

Round 3: Pilot implementation
Selected one division to implement first. Proved the system could work without disrupting existing functionality. Used success to build momentum.
Iteration focus areas:

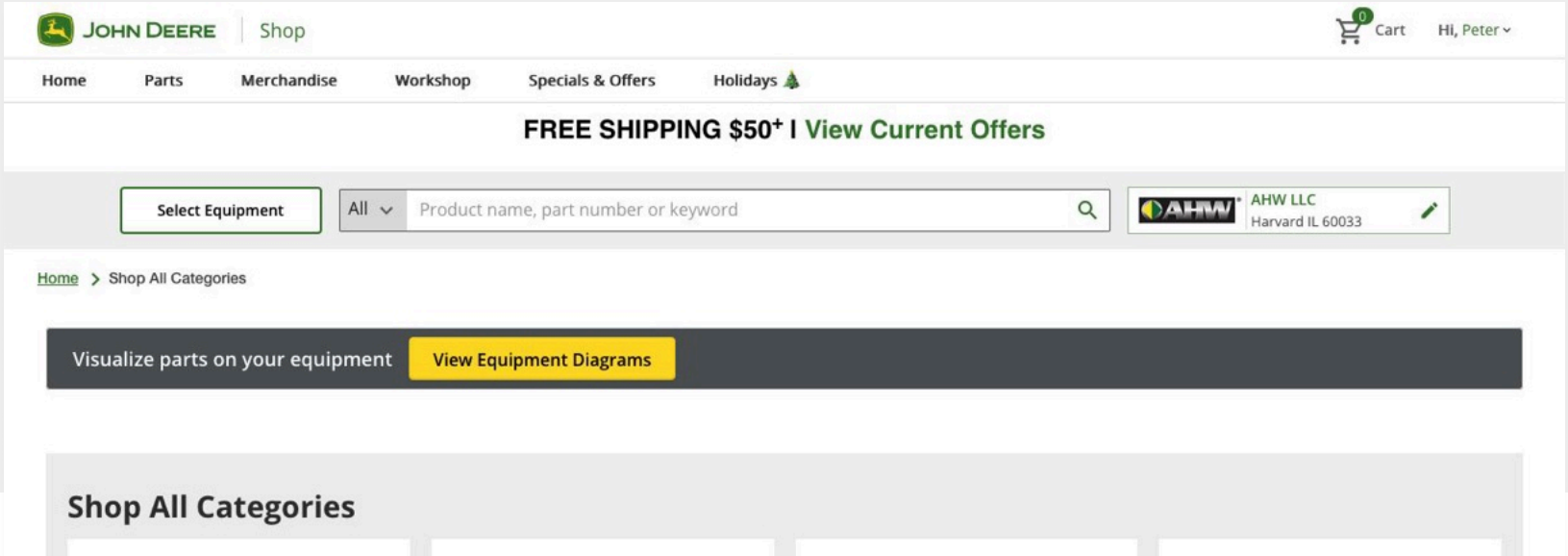
Implementation Strategy

Phased rollout:

1. Agriculture division first (largest, most mature digital presence)
2. Construction division second (validated system worked across different product types)
3. Turf, forestry, and other divisions in parallel
4. Regional variations deployed based on market readiness

Modular delivery:
Created navigation as an embeddable component that could be integrated into existing sites without full rebuilds. This allowed divisions to adopt on their timeline.

Governance structure:
Established cross-divisional design council to maintain consistency while allowing necessary flexibility. Monthly reviews of navigation usage and quarterly updates.



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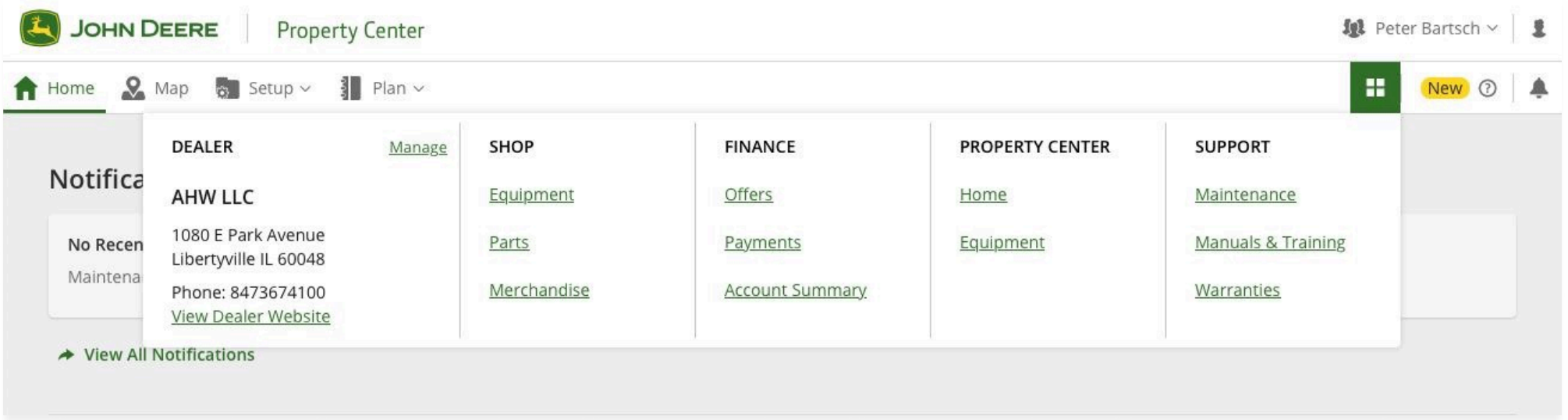

RESULTS

All digital places John Deere shared a common navigation.
The unified navigation system launched across divisions and regions, creating a consistent enterprise-wide digital experience.

Implementation metrics:

- Deployed across 47 websites in 12 languages
- Integrated into 8 major digital platforms (marketing, e-commerce, service portals)
- Rolled out over 18 months from pilot to full deployment
- Zero downtime during implementation (modular approach allowed seamless integration)

Consistency achieved:

- Same global navigation elements on every John Deere digital property
- Consistent search experience across product lines
- Universal dealer locator accessible from every page
- Unified account system (one login for all John Deere digital services)

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OUTCOME

Customers found what they needed easier and faster, fewer abandon carts.

User experience improvements:

- Task completion time reduced by 38% (measured on common tasks like finding dealer, locating parts,
- accessing service manuals)
- Navigation-related support tickets decreased by 52%
- Cross-divisional product discovery increased by 27% (users finding products from other divisions)

Business impact:

- Reduced development costs (shared navigation component vs. division-specific development)
- Faster time-to-market for new digital properties (pre-built navigation framework)
- Improved brand consistency across global markets
- Foundation for future unified features (unified account, cross-divisional cart, etc.)

Qualitative feedback:

From customers:
"Finally feels like one company instead of five different websites."

From dealers:
"Training new staff is easier. The system works the same way across all product lines."

From internal teams:
"We can focus on division-specific features instead of rebuilding navigation every time."

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WHAT WORKED

Starting with pilot implementation
Proving the concept with one division built credibility. Success stories sold the vision better than presentations.

Modular technical approach
Making navigation an embeddable component allowed divisions to adopt without disrupting existing systems. Reduced resistance dramatically.

Balancing consistency and flexibility
Three-tier architecture (global, division, local) gave divisions enough autonomy while maintaining enterprise consistency.

Prototypes as alignment tools
Interactive prototypes let stakeholders experience the solution, not just evaluate designs. This shifted conversations from opinion to evidence.

WHAT I'D DO DIFFERENTLY

Establish governance earlier
We built the design council after initial rollout. Should have established it during design phase to smooth adoption.

More dealer involvement
Dealers were the end users but we primarily worked with corporate and division stakeholders. More dealer input earlier would have surfaced practical issues sooner.

Better analytics instrumentation
We measured task completion but should have instrumented more granular navigation behavior to understand usage patterns better.

Video documentation
Should have created more video training materials for implementation teams. Most divisions figured it out, but better documentation would have accelerated adoption.

WHAT THIS TAUGHT ME ABOUT ENTERPRISE DESIGN

Politics matter as much as design quality
The best design fails if stakeholders don't buy in. Enterprise design is as much about organizational dynamics as user experience.

Start small, prove value, scale
Trying to launch everything at once would have failed. Pilot implementation built momentum and credibility.

Modular beats monolithic
In enterprises with legacy systems, modular components that integrate beat grand plans to rebuild everything.

Governance is infrastructure
Consistent experiences require ongoing governance, not just initial design. The design council was as important as the navigation system itself.

Manufacturing constraints are real
Software people want to iterate continuously. Hardware companies operate on longer cycles. Good enterprise design respects both realities.

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CAPABILITIES DEMONSTRATED

1. **Enterprise information architecture:**
   Designing scalable navigation for complex multi-brand organizations

1. **Stakeholder management:**
   Building consensus across competing divisions and priorities

2. **Phased implementation strategy:**
   Pilot-to-scale rollout across global organization

3. **Modular design systems:**
   Creating reusable components that integrate with legacy systems

4. **Cross-functional collaboration:**
   Bridging software development and manufacturing realities

5. **Governance design:**
   Establishing structures to maintain consistency over time

6. **Political navigation:**
   Working through organizational resistance and competing incentives