The Right Way to Shop

We made a grocery store kiosk. Users weren’t sure what it was for. Here’s what went wrong.

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Human Factors and Interface Design
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Enhancing *usability* of a novel interface is useless if the interface does not quickly convey its *conceptual model* to the user.
Identifying a Problem

- Grocery shopping has a model
- Let’s make a kiosk to support it
- Users are confused!
- Let’s advertise the features better
- What is this kiosk for, again?
- Problem!
What Went Wrong?

We failed to **explain our model** to the user.
Our Model for Grocery Shopping

- Look Up a Recipe
- Recipe Ingredients
- Check Stock Inventory
- Inventory Supplies
- Plan a Party
- Supplies for Events
- Make a Shopping List
- Get the groceries!
Users Make Shopping Lists

SHANNON
Inventory stocking

ETHAN
Party planning

MELANIE
Meal planning

JASON
Serendipity
Different reasons, same actions

Check Stock Inventory → Inventory Supplies → Make a Shopping List → Get the groceries!

Recipe Ingredients → Look Up a Recipe

Plan a Party → Supplies for Events
BUILDING FROM THE MODEL
Building a List from Sources

Make a Shopping List

Inventory Supplies

Recipe Ingredients

Shopping List

Item | Quantity
--- | ---
Eggplant Parmesan Recipe | 
Mozzarella Cheese | 
olive oil | 
Bread crumbs | 
Basil | 
Garlic | 
Eggs | 

Recipe Book

Lemon and Herb Tilapia Serves 6

Ingredients:
- Lemon
- Butter
- Parsley
- Salt 1t
- Pepper ¼t
- Green Onions ½c
- Tilapia Fillets 6

Similar Recipes:
- Pan Fried Tilapia
- Tilapia with Dill and Sour Cream
- Easy Fried Fish Fillets

Directions:
- Preheat oven to 350°
- Coat Tilapia in a layer of lemon butter
Eliminating Modes

Users had trouble understanding the Dual Recipe and Item Modes.
“What do the apple and plate icons mean?”

“What is going to be printed when I hit Print?”
ADVERTISING FEATURES
Making the Right Choice

Each user performed the scenarios in a different way
Emphasizing Key Functionality

H6 [Recognition rather than recall]
We made the “search-based” solution path very obvious.
Providing Guidance

H5 [Error prevention]

We made most paths eventually lead to a solution.

The only error present in the entire interface – is not a dead end.
Users Doubt Usefulness

“I see a map, am I done now?”

“I don’t know why I’d need to find recipes.”

“Why do I need to scan a list I already have?”
Not Good Enough

No amount of feature enhancements will communicate our model better.
FIXING THE PROBLEM
Communicate Better!

1. Fix What We Have:
   - Demo/Video/Intro to Model

2. Make a Big Fix:
   - Make the Interface More Model Explicit

3. Try it all over again
   - Simplify Available Tasks to Simplify Model
Proposal 1: Improve our Intro

Welcome to Manatee Farms Grocers!

Use this Kiosk to search for items in our store, add items to your shopping list, and view your shopping list on a map with walking directions.

At any time, you may scan a hand-written shopping list or swipe your Shopper’s Club card to personalize your experience.

Tap the screen to get started!
Proposal 2: Try a New Layout

Search our Store, Build a Shopping List, and Map your Shopping Trip!

Search our Store.

Daily Manatee Specials

Grandma’s Walnut Chocolate Chip Cookies
These delicious cookies taste just like Grandma’s, made with crunchy walnuts and delicious chocolate chips.

Add to Shopping List

Total Price $0.00

Finish/Print
Settings
End Session
Proposal 3: Start from Scratch

- Develop Concept
- Co-Design
- Refine Idea
- Usability Test
- Analyze Issues

We Are Here
IN CONCLUSION
What Happened

• We believe our model is valid

• We spent time advertising features

• But we should have advertised our model
Give the user time to understand the model.
Advertising features can’t fix a broken model.
QUESTIONS