

# Rad Radishes

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# Motivation



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# Current: discussions, email & google drive

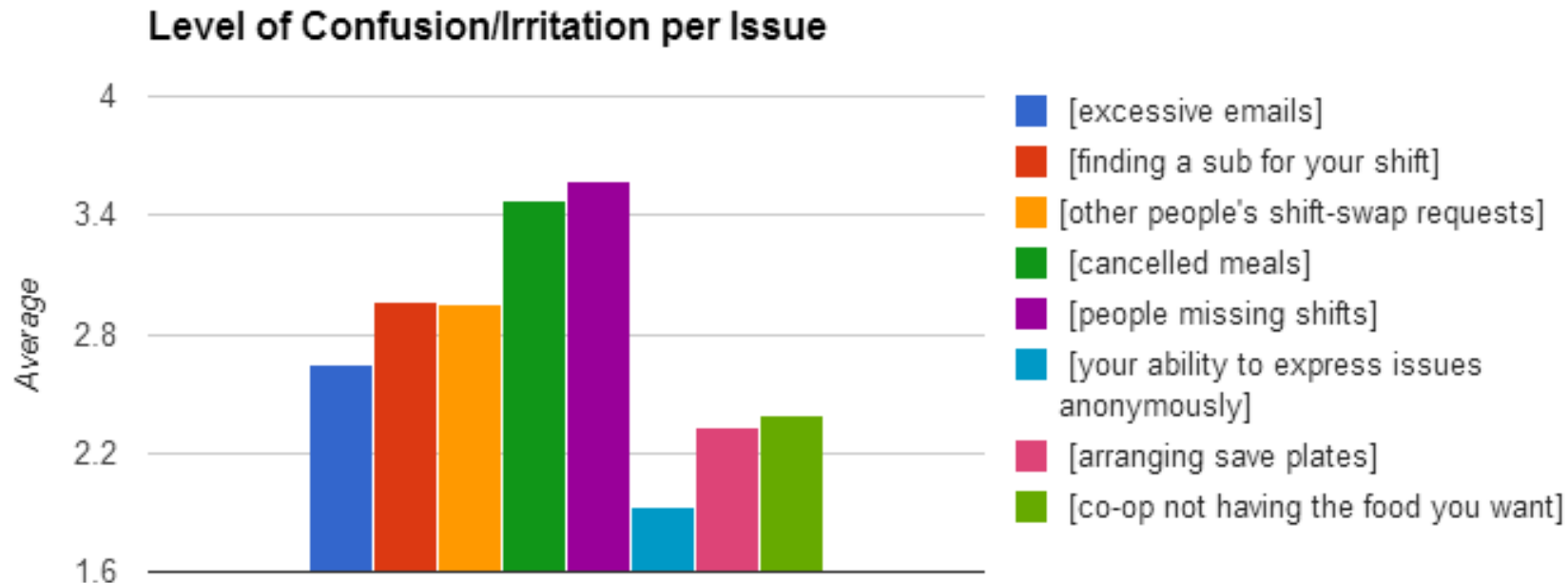
## Email & google drive

- Pros:
  - Accessible
  - User communication
  - Community
- Cons:
  - Spam
  - No filter

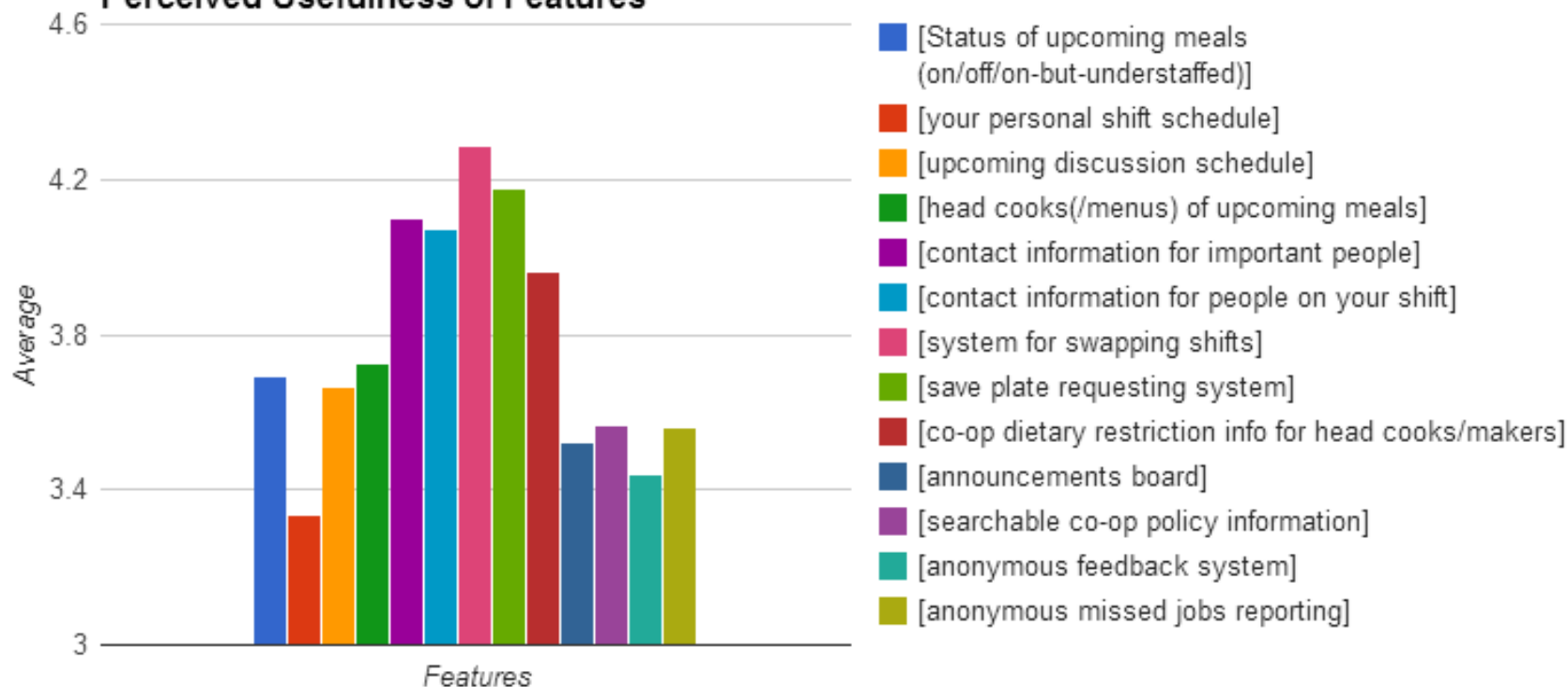


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# Confirming the Problem



## Perceived Usefulness of Features



# Goal

- Central accessible information system
- Proposed features:
  - Calendar
  - Shift info & Swaps
  - Wiki-style documentation
  - Announcement board



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# Problem Space

- Different co-ops, different requirements
- Membership is private
- 100% participation not guaranteed
- Cooperation & collaboration



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# Design



## CO-OPERATION NATION

[home](#)[shifts](#)[my account](#)[Other co-ops](#)[Sign out](#)

### HARKNESS CO-OP

Hi! Welcome to Harkness! We're a vegetarian co-op at Oberlin. We like guests, but ask that guests do one crew (clean the kitchen) for every three meals they eat.

	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
Breakfast 8:20 AM	X	X	X	There's breakfast	There's breakfast	X	X
Lunch 12:20 PM	board lunch <i>click for more info</i>	There's lunch	There's lunch	IDLEC elections <i>click for more info</i>	There's lunch	There's lunch <i>click for more info</i>	There's lunch
Dinner 6:20 PM	There's dinner	X	new member trainer elections <i>click for more info</i>	hark closedown discussion! <i>click for more info</i>	money night <i>click for more info</i>	There's dinner	There's dinner



# CO-OPERATION NATION\*

- Rails App
- Invitation-based registration
- Open content editability
- Configurability



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\* Actual name TBD

# Key Aspects & Features

- User account creation
- Calendar of meals
- Personal shift management hub
- Co-op configuration process



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# User Account Creation

- Co-op “join links”: admin and member
- Email
- Google Authentication
- Bootstrapping problem



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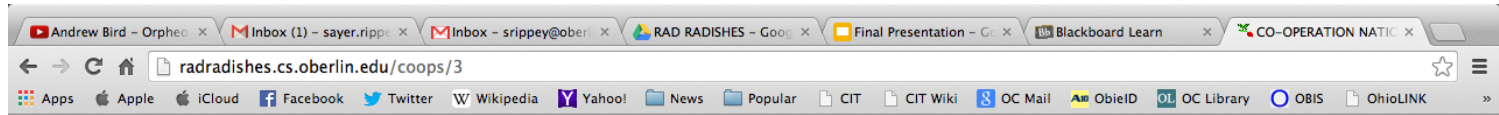
# Meal Calendar

- Public and private versions
- Meal times
- Extra info: meal and discussion
- Cancelled meals
- Editable meals



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# Meal Calendar



## CO-OPERATION NATION

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### HARKNESS CO-OP

SHARKNESS 4 LYFE

[edit co-op information](#)

[email myself a link to add members](#)

[email myself a link to add admins](#)

Signed in!

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Breakfast 8:20 AM	X	X	There's breakfast <a href="#">edit</a>	There's breakfast <a href="#">edit</a>	X	X	X
Lunch 12:20 PM	There's lunch <a href="#">edit</a>	discussing improv show in hark <a href="#">edit</a> <i>click for more info</i>	iDLEC elections <a href="#">edit</a> <i>click for more info</i>	There's lunch <a href="#">edit</a>	There's lunch <a href="#">edit</a> <i>click for more info</i>	There's lunch <a href="#">edit</a>	There's lunch <a href="#">edit</a> <i>click for more info</i>
Dinner 6:20 PM	X	new member trainer elections <a href="#">edit</a> <i>click for more info</i>	hark closedown discussion! <a href="#">edit</a> <i>click for more info</i>	money night <a href="#">edit</a> <i>click for more info</i>	board night <a href="#">edit</a> <i>click for more info</i>	There's dinner <a href="#">edit</a>	There's dinner <a href="#">edit</a>

Last Edited By:

sayer

# Shifts & Swap Requests

- Shift selection
- Contact info shift “co-workers”
- PIC/Head Cook
- Swap requests visible to all co-op members on the site
- Resolvable



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# Shifts & Swap Requests

The screenshot shows a web browser window with the following elements:

- Browser Tabs:** Andrew Bird - Orpheo Loc, Sign in - Google Accounts, Blackboard Learn, CO-OPERATION NATION.
- Address Bar:** radradishes.cs.oberlin.edu/users/2
- Navigation Bar:** home | shifts | my account | Other co-ops | Sign out
- Section: Your Harkness shifts:**
  - Thursday Lunch Crew** (delete | swap)
  - also on this shift:*
  - PIC:** J [redacted] k [redacted]@oberlin.edu ( [redacted] [redacted] [redacted] )
  - Everyone else:** J [redacted] k [redacted]@oberlin.edu ( [redacted] [redacted] [redacted] )  
sayer srippey@oberlin.edu
  - [+ Add new shifts](#)
- Section: Swapopportunities**
  - [redacted] k Tuesday Dinner Crew (December 3)**
  - Hey guys! I promised Sonya I would cover her dinner crew today, but I actually have a required movie screening for one of my classes at 7pm. If I can't find a cover, I can start crewing while the dinner meal is taking place and do what I can for an hour.
  - [redacted]@oberlin.edu ( [redacted] [redacted] [redacted] )
- New Swap Request for Thursday Lunch Crew**
  - Enter a message:
  - Date:
  - Head cook or pic required?
  - [Create Swap request](#)

# Co-op Configuration

- Admin only access
- Co-op “descriptions”
- Regular Meals: time, days of week, shifts
- Shifts: time, days of week



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# Co-op Configuration

radradishes.cs.oberlin.edu/coops/3/meals/edit\_mult

Hi! Welcome to Harkness! We're a vegetarian co-op at Oberlin. We like guests, but ask that guests do one crew (clean the kitchen) for every three meals they eat.

### What meals does your co-op have?

This is so we can know what meals happen on a regular basis and show relevant information for your co-op members!

**Breakfast**

Meal Time? 8 : 20 AM

Days? Monday  Tuesday  Wednesday  Thursday  Friday  Saturday  Sunday

**Associated Shifts**

- Kitchen prep (kp)
- 1st hour cook
- 2nd hour cook
- Pre-crew
- Crew
- other
- other
- other

**Lunch**

**Dinner**

### What other shifts does your co-op have?

These are shifts that don't happen with any particular meal.

**Commando**

Days? Monday  Tuesday  Wednesday  Thursday  Friday  Saturday  Sunday

# Research Topics

- Sign-up
- Shift setup
- Swap requests
- Guest view
- Meal editing



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# Methodology

## Live User Testing

goto shifts page  
if shift not set for user  
    then create shift for Wednesday  
Dinner second-hour cooking shift  
fi  
click swap on wednesday dinner 2nd hour  
cooking shift  
fill in form  
    change date to 27th November  
    submit

Figure 1a: Golden standard for Task 3

goto home  
    recognize meal is cancelled  
goto other coops  
goto fairchild  
    recognize meal is available

Figure 1b: Golden standard for Task 4

goto home  
click edit meal (saturday lunch or dinner)  
    add description  
    add title  
    don't change discussion description  
    submit

Figure 1c: Golden standard for Task 5

## Asynchronous Data Collection

# User Video/Audio Testing

Coding scheme:

- Errors: deviations from ideal solution
- Problems: other confusion

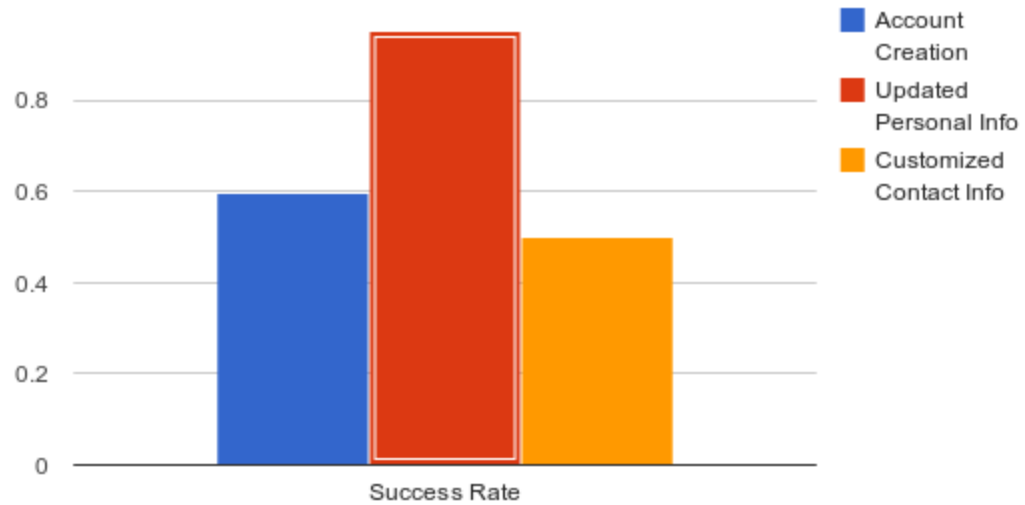
Per User Data

Task	Avg. Errors	Avg. Problems
Shift Swap	1.54	1.35
Check another co-op for lunch	0.13	0.76
Edit a meal	1.00	0.5

# Lessons Learned

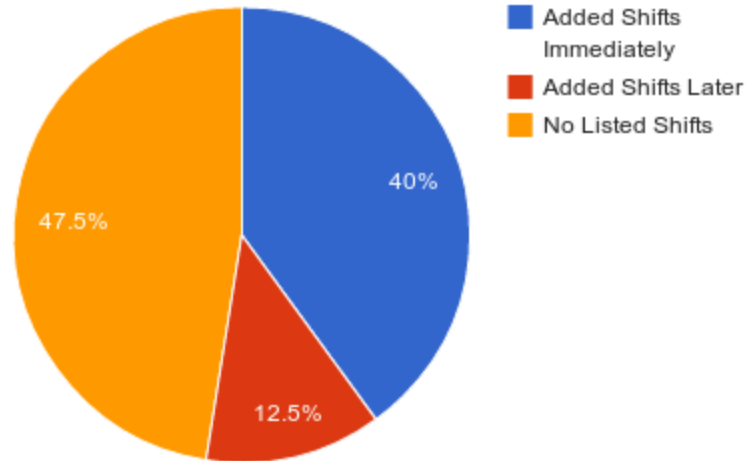


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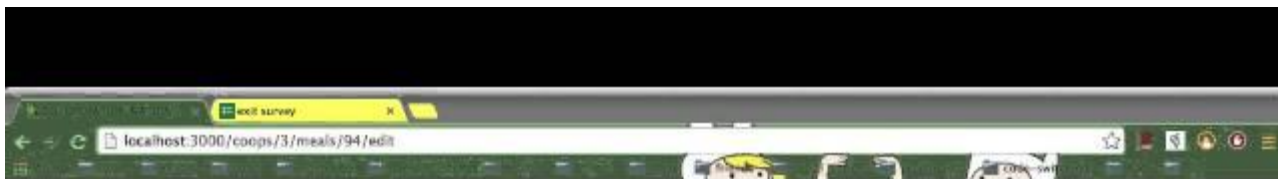


Sign In Process

### Shift Setup



Shift Setup



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### Saturday Lunch 11/30/2013

 This meal is cancelledMeal Title: Start Time:  : Meal menu,  
description,  
announcements:

Discussion info:



# CO-OPERATION NATION

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## Your Harkness shifts:

**Thursday Lunch Crew**[delete](#) | [swap](#)[+ Add new shifts](#)

### New Swap Request for *Thursday Lunch Crew*

Enter a message:

Hi, I am sick. This is a good crew!  
Plz take it.

Date

December 12 ↕

Head cook or pic required?

[Create Swap request](#)

## Swapportunities

**Tuesday Dinner Crew (December 3)**

Hey guys! I promised [redacted] I would cover her dinner crew today, but I actually have a required movie screening for one of my classes at 7pm. If I can't find a cover, I can start crewing while the dinner meal is taking place and do what I can for an hour.



Task	Avg. Errors	Avg. Problems
Shift Swap	1.54	1.35
Check another co-op for lunch	0.13	0.76
Edit a meal	1.00	0.5

# Meal Editing

- editing form easy to use
- confusing calendar



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# Conclusion



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# Future Work

- Improve descriptions/phrasing of instruction
- Minor interface changes
- Styling improvements
- Fix bugs encountered in user testing
- Consider new standalone features



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# Conclusions

- **Motivation:**
  - Current system for online co-op communication is inefficient.
- **Solution:**
  - Address most important/common use cases with dynamic application to simplify communication.
- **Evaluation:**
  - Co-operators are very excited about our web app despite imperfections, which we plan to address.

# Thanks...

Cynthia, HCI class, everyone who participated in our user study, Pyle and Harkness



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