

Playing in Traffic

Building a Stronger Community Through Playful Transportation

Lorelei Kelly
Xiaohan Liu
Dane Petersen
Sarah Reeder

Thursday, April 23, 2009

Citizenship

Thursday, April 23, 2009

We define citizenship as encouraging behaviors that enhance the Bloomington community, where community means the complete, multifaceted experience of this regional location. This goal is consistent with the mission of BEAD, which seeks to "bring the business and creative sectors together to advance commerce and culture, build community, and spur economic development".

BEAD: focus on the "get people here" core value - want to get people downtown, not just anyone, but students, visitors, new transient populations, who are walking! and more apt to make a purchase / experience downtown
also "keep bloomington bloomington"

Introduction

"Hi, I'm certainly glad you could join me today."
— Bob Ross

1

Thursday, April 23, 2009

Bob Ross was a painter with a TV show on PBS in the 80s and early 90s. He was an inspiration for us on this project, and we will be sharing a few more of his quotes with you. While this is a quote, we also are certainly glad you could join us today!

Citizenship

Community

3

Thursday, April 23, 2009

We define citizenship as encouraging behaviors that enhance the Bloomington community, where community means the complete, multifaceted experience of this regional location. This goal is consistent with the mission of BEAD, which seeks to "bring the business and creative sectors together to advance commerce and culture, build community, and spur economic development".

BEAD: focus on the "get people here" core value - want to get people downtown, not just anyone, but students, visitors, new transient populations, who are walking! and more apt to make a purchase / experience downtown
also "keep bloomington bloomington"

2

Thursday, April 23, 2009

We define citizenship as encouraging behaviors that enhance the Bloomington community, where community means the complete, multifaceted experience of this regional location. This goal is consistent with the mission of BEAD, which seeks to "bring the business and creative sectors together to advance commerce and culture, build community, and spur economic development".

BEAD: focus on the "get people here" core value - want to get people downtown, not just anyone, but students, visitors, new transient populations, who are walking! and more apt to make a purchase / experience downtown
also "keep bloomington bloomington"

Citizenship

Community

3

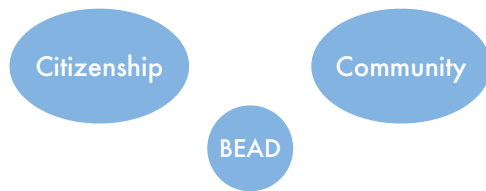
Thursday, April 23, 2009

This goal is consistent with the mission of BEAD, which seeks to "bring the business and creative sectors together to advance commerce and culture, build community, and spur economic development". We chose to focus primarily on building community.

BEAD: focus on the "get people here" core value - want to get people downtown, not just anyone, but students, visitors, new transient populations, who are walking! and more apt to make a purchase / experience downtown
also "keep bloomington bloomington"

3

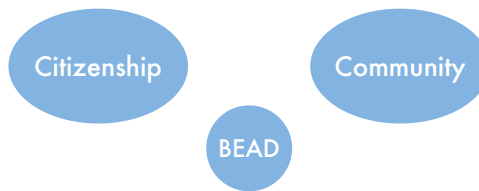
4



Thursday, April 23, 2009

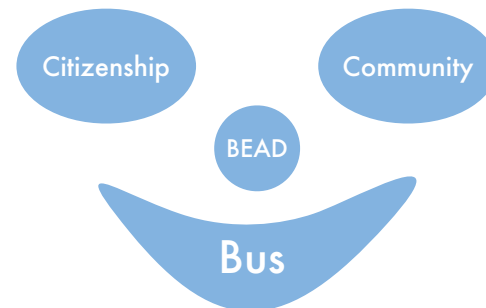
This goal is consistent with the mission of BEAD, which seeks to "bring the business and creative sectors together to advance commerce and culture, build community, and spur economic development". We chose to focus primarily on building community.

BEAD: focus on the "get people here" core value - want to get people downtown, not just anyone, but students, visitors, new transient populations, who are walking and more apt to make a purchase / experience downtown
also "keep Bloomington blooming"



Thursday, April 23, 2009

...by utilizing the existing communal public transportation system. We believe we can not only "keep Bloomington Bloomington" but also make Bloomington MORE Bloomington by using digital wayshowing to design a more Bloomington bus system.



Thursday, April 23, 2009

...by utilizing the existing communal public transportation system. We believe we can not only "keep Bloomington Bloomington" but also make Bloomington MORE Bloomington by using digital wayshowing to design a more Bloomington bus system.

Predispositions

"Anybody can paint a picture that they're proud of."
— Bob Ross

Thursday, April 23, 2009

Some assumptions we can make about community...

Connecting with a new community can be difficult.



Thursday, April 23, 2009

While there may be plenty of information available about a community, the only way to really appreciate it is to know that community.

To be a part of a community, one must interact with it.



Thursday, April 23, 2009

A community isn't just about location, size, infrastructure, etc... it's about the people living in it. You can't have a community without people, and you can't know a community without knowing the people.

Buses Are Community Spaces



Thursday, April 23, 2009
our opportunity space. 'nuff said.

Research

"It helps when you're doing these kind of things,
maybe make up a little story in your mind."
— Bob Ross

Thursday, April 23, 2009
We did primary, secondary, and existing technology research.

Primary Research



Thursday, April 23, 2009
We rode the bus multiple times...

Planning

Trip planning can be
difficult and time
consuming.



Thursday, April 23, 2009
...taking routes we were unfamiliar with. Even after deciding where to go, it took us quite
some time to find out how.

Waiting

Waiting for a bus can
cause undue stress and
anxiety.



Thursday, April 23, 2009
Riders waiting for their bus have many questions on their mind. "when will my bus be here?
did I miss it? where is the bus now?" among others. This "unknown" element of riding the bus
could be a roadblock for some.

Boarding

The social norms and
customs associated with
riding the bus can be
mysterious to new riders.



Thursday, April 23, 2009
This was my first trip on a city bus. Having ridden the IU bus before and seeing the utter
confusion on the driver's face when I presented my ID, I did not have my ID out when the
Bloomington bus pulled up. The bus driver was forgiving, but irritated. "n00b!"

Riding

While some interaction between acquaintances does occur, most riders tend to keep to themselves.



Thursday, April 23, 2009

Most people were reading, doing homework, listening to music, and otherwise giving off a "leave me alone" vibe. We broke a lot of social norms while riding by taking pictures, talking about buses, etc.

15

Disembarking

When visiting a new location, it can be difficult to know the appropriate time to disembark.



Thursday, April 23, 2009

Our maps were out and we were obviously new to the route. Likely because of this, a stranger offered help when we seemed unsure when to disembark.

16

Errors can be costly.



Thursday, April 23, 2009

We learned the hard way that small errors can result in drastically compounded loss of time when we misread the bus schedule and had to wait an hour for the next bus. Had we taken the wrong bus or stop we could have ended up miles from where we needed to be.

17

Secondary Research



Thursday, April 23, 2009

We found some surprising facts while conducting secondary research. :)

18

Attitudes

Riders don't mind spending time in transit, but dislike waiting. Reliability is more important than time.

Wachs, Martin (1976). Consumer Attitudes Toward Transit Service: An Interpretive Review. *Journal of the American Planning Association*, 42: 196-104

Thursday, April 23, 2009

People are generally comfortable with spending time inside of vehicles, but seek to minimize time spend outside of vehicles waiting, or walking to and from locations. Currently, cars offer best options for minimizing out-of-vehicle travel time.

People are more interested in being able to get to a destination reliably on time, than in minimizing total travel time. People are more likely to choose a slow but reliable method than a fast but variable method.



19

Benefits

Not only is public transit a benefit for those without means of private transportation, it provides conveniences for others in the community as well.

Korhonen M., Painter, Robert Douglas Scott II, Philip R. Wandschneider, Kenneth L. Casavant. (2002) Using Contingent Valuation to Measure User and Nonuser Benefits: An Application to Public Transit. *Review of Agricultural Economics*, 24: 2, 394-409.

Thursday, April 23, 2009

Increased mobility for the young, elderly, disabled, people without cars. This is both a direct benefit to those people, and a community benefit by increasing the ability of diverse populations to interact and engage with the community.

Waiting and operating a car is expensive, using mass transit instead of using a car, saving more than one car, allows people to save money

Fewer cars on the road leads to safer roads for both drivers and pedestrians.

Riding the bus provides an opportunity for social interaction and public space, which provides intangible community and quality-of-life benefits

Decreased traffic and parking congestion makes driving more pleasant when one does use a car, makes walking and biking safer and easier.

Less traffic means better air quality, and less noise and light pollution.



20

Information Systems

Information should be presented at the point of decision. Accuracy is vital.



Reed, Darren J and Wright, Peter. (2006). Experiencing BUSS When Becoming a Bus Passenger. Proceedings of the 6th conference on Designing Interactive systems. ACM. (information and image)

Thursday, April 23, 2009
Information is not useful or relevant to passengers after they have made decisions about which route to take and when

Passenger information systems that offer unreliable estimates, or are unclear about the nature of information being presented, increased passengers' uncertainty and anxiety.

Thursday, April 23, 2009
Exemplar, or existing technologies research. There's some neat stuff out there!



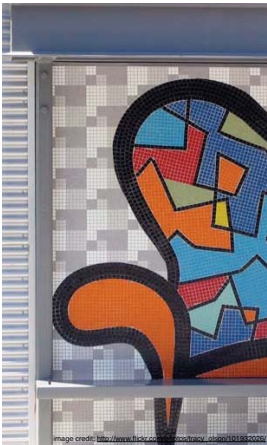
Google Transit

www.google.com/transit



Thursday, April 23, 2009
Google Transit is a program that allows public transportation authorities to import their route information and schedules into Google Maps. Citizens can enter their starting and ending points, and Google Maps will guide them to the nearest bus stop, list the next arrival time, and even help them navigate bus transfers. Boulder, Colorado is only a bit larger than Bloomington and hosts a large University, and their transit authority has integrated their system with Google Maps.

Artsy Shelters



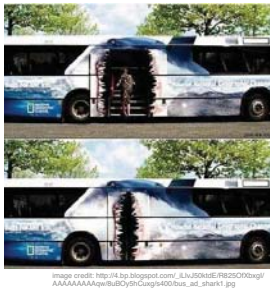
Thursday, April 23, 2009
A simple shelter in Seattle has become a noteworthy landmark with the addition of a creative mosaic design.

Artsy Shelters



Thursday, April 23, 2009
Shelters take on a private feel. This "living room" is located on the island of Unst in Scotland.

Shark Bus



Thursday, April 23, 2009
Some buses are being used creatively for advertising. This design takes advantage of the action of the doors.

Topsy Turvy Bus



Thursday, April 23, 2009

Photo Credit: Nomadfrog <http://www.flickr.com/photos/nomadfrog/484317056/> Licensed Under Creative Commons Accessed March 8, 2009

Topsy Turvy Bus makes a political statement about the state of the US budget. Commissioned by Ben & Jerry's.

27

Thursday, April 23, 2009

Insights

"We want happy paintings. Happy paintings. If you want sad things, watch the news."
— Bob Ross

Make Connections

Encourage new Bloomingtonians to connect with the community via public transit.



28

Thursday, April 23, 2009

29

Build Character

Reflect the unique character of Bloomington.



Thursday, April 23, 2009

Transportation systems do contribute to the character of a locale. Buses in Bloomington are much like buses in other cities, we have an opportunity to make Bloomington buses a unique community experience.

30

Have Fun

Provide timely, accurate information in a fun and engaging way.



Thursday, April 23, 2009

People unfamiliar with the norms of riding a bus can be confused and intimidated by the process of trying to ride a bus. Individuals do not have control over when or where a bus travels, so getting this information accurately is the key to avoiding and recovering from errors when traveling on a bus.

31

Thursday, April 23, 2009

32

Concepts

"We don't make mistakes, just happy little accidents."
— Bob Ross

Walking



Thursday, April 23, 2009 33
As Lorelei pointed out in our secondary research, bus transportation benefits non-riders, too. Quite a few of our concepts are aimed at bringing the presence of public transit in the community to the notice of the casual observer.

Art Shelter



Thursday, April 23, 2009 34
Bus shelters could draw attention as public displays of art. This would bring notice not only to the art, but also to the presence of the bus system as a part of the community.

Art Shelter



Thursday, April 23, 2009 35
The artwork used here is actually located on S. Washington street near Sahara Mart.

Contextual Ads



Thursday, April 23, 2009 36
Contextual ads would change relative to the buses location, using GPS technology to display ads for nearby businesses to pedestrians.

Contextual Ads



Thursday, April 23, 2009 37
Ads could also be time and area specific (IU campus in April).

Art Bus



Thursday, April 23, 2009 38
The Art Bus could use LED technology to display works of art, bringing the art to the public.

Bus of a Different Color



Thursday, April 23, 2009 39
The bus of a different color would change colors to reflect the BEAD district it is currently in. It's a sign on the move! Imagine you are shopping in the market district and you see a green bus.

Bus of a Different Color



Thursday, April 23, 2009 40
While enjoying lunch on restaurant row, you notice the buses are pink.

Bus of a Different Color



Thursday, April 23, 2009 41
and as you walk to Kirkwood, you see the buses change to red!

Ad Bus



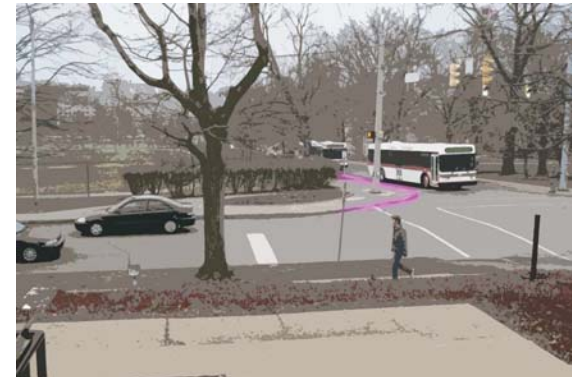
Thursday, April 23, 2009
Funding for the art bus and bus of a different color is provided by...

Light Path



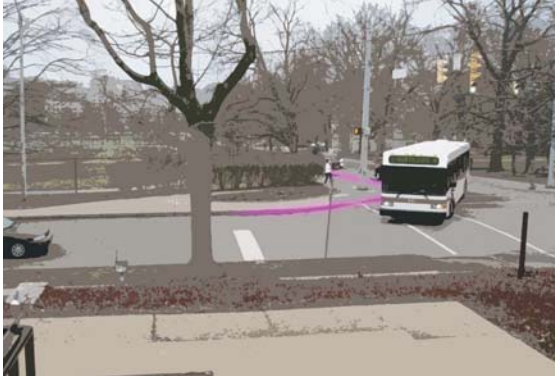
Thursday, April 23, 2009 42
Often pedestrians are unaware of the bus routes.

Light Path



Thursday, April 23, 2009 44
A light path would illuminate the path the bus takes, providing cars and pedestrians advance warning

Light Path



Thursday, April 23, 2009

Light Path



45 Thursday, April 23, 2009
as well as showing those waiting when their bus is coming

Light Path



46 Thursday, April 23, 2009
or whether they just missed it.

47

Bloomingtree



Thursday, April 23, 2009
Another opportunity to display public art.

Root Path



48 Thursday, April 23, 2009
The light path might take the form of roots as lights leading toward...

Root Path



49 Thursday, April 23, 2009
...or away from the tree.

50

Bloomingtree



Thursday, April 23, 2009

This display can stand alone or offer flexible OLED displays as leaves...

Bloomingtree

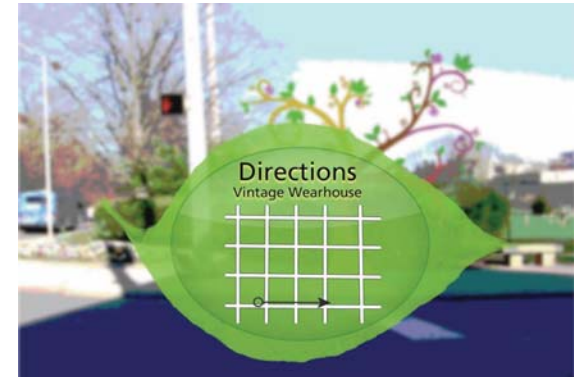


51

Thursday, April 23, 2009

In case you are hungry, this really is the special for today (Thursday) at FARMBloomington!

Bloomingtree



52

Thursday, April 23, 2009

Information access could be limited to wayfinding in Bloomington specifically.

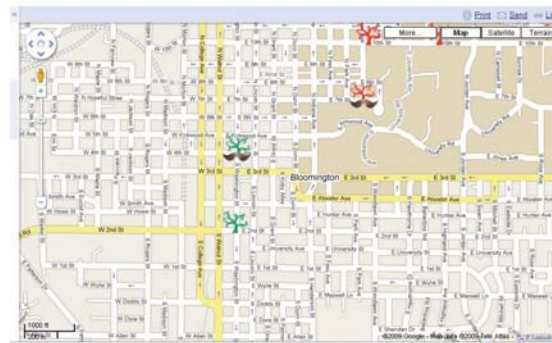
53

Planning



Thursday, April 23, 2009

Google Transit



54

Thursday, April 23, 2009

Will Google Transit be able to display real-time GPS in 10 years? A map displaying the real-time location of buses could be accessed by computer, smart phone, or at a display at the bus stop. Yes, those are mustaches. We'll get to that concept in a minute.

Ticket Bundles



55

Thursday, April 23, 2009

Pre-planned packages could bundle bus-rides with tickets and vouchers for restaurants and other destinations. Such a package could provide unfamiliar riders with the confidence and direction they need to discover this facet of Bloomington's character.

56

Waiting



Thursday, April 23, 2009

Bus Cam



57 Thursday, April 23, 2009

Bus Cam



58 Thursday, April 23, 2009

59

Bustache



Thursday, April 23, 2009

A mustache could identify specific routes or individual buses.

Bustache



60 Thursday, April 23, 2009

A fiber optic bustache glows in the dark.

Avatar Bus



61 Thursday, April 23, 2009

Represents an individual bus driver. Goal is to encourage riders to get to know their drivers as part of the community (and vice versa).

62

Boarding



Thursday, April 23, 2009

Mood Bus



63

Thursday, April 23, 2009

The driver wears a bio-metric harness which interprets vital signs into different moods, giving the rider fair warning!

Mood Bus



64

Thursday, April 23, 2009

Perhaps a sad face might stimulate conversation between rider and driver.

65

Mood Bus



Thursday, April 23, 2009

We might wait for the next bus.

Mood Bus



66

Thursday, April 23, 2009

A video camera records and filters a real-time video of the bus driver's face. This filter mimics the work of artist Chuck Close.

Inside Out Bus



67

Thursday, April 23, 2009

68

Riding



Thursday, April 23, 2009

"...The riders on the bus go up and down.." This song is surprisingly accurate.

Tree Branch



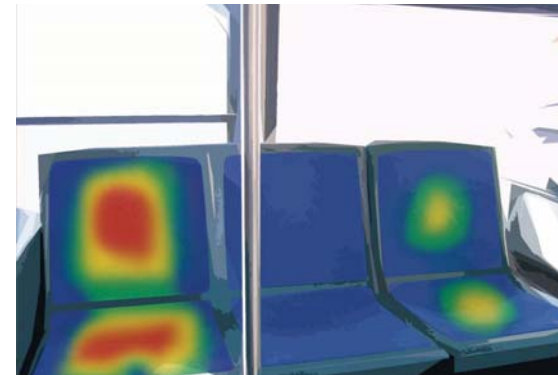
69

Thursday, April 23, 2009

"Happy little tree limb" – Bob Ross

Here we bring the theme of the Bloomingtree to the inside of the bus as an interactive hand hold that can provide limited locational information using simple light displays.

Hot Seat

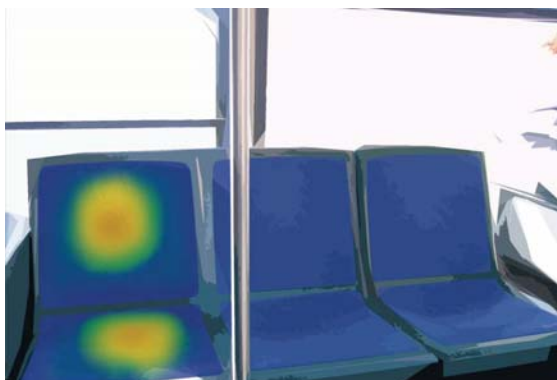


70

Thursday, April 23, 2009

71

Hot Seat



Thursday, April 23, 2009

Bus Window



72

Thursday, April 23, 2009

Bus Window



73

Thursday, April 23, 2009

74

Disembarking



Thursday, April 23, 2009

How do you know which stop to take if you don't know the landmarks?

Bus Window



75

Thursday, April 23, 2009

The interactive bus window could display a community-contributed photograph of landmarks near the stop you want.

Bus Window



Thursday, April 23, 2009

Using GPS, the bus window could display labels of landmarks as they approach. This labeling would benefit even those familiar with the community as they would learn the names of landmarks they might know by site but not by name.

77

Strategies

Strategies

"Ok, let's go back to the big brush."
— Bob Ross

Thursday, April 23, 2009

Some of the concepts we have presented are more feasible in the near future than others.

78

Thursday, April 23, 2009

Google transit is operational NOW, and requires only the route data to be helpful (no GPS required). Bus stops can be obvious and fun without OLED technology. Use local artists to bring "Bloomington" to the bus system. The Bloomingtrees could be implemented first as an art piece, with the interactive technology added as it becomes commercially available and affordable.

79

Thursday, April 23, 2009

The bus system can become a major contribution to the character of this little town, creating conversation and engaging the community. What will this "more Bloomington" Bloomington look like? That is up to you, Bloomington!

80

Conclusion

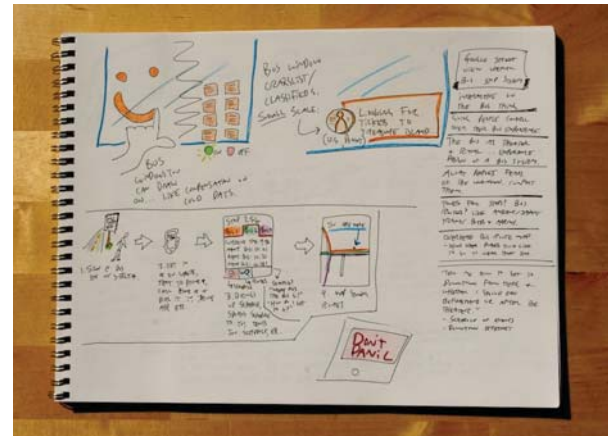
"Decide where your little footy hills live."
— Bob Ross

Thank You!

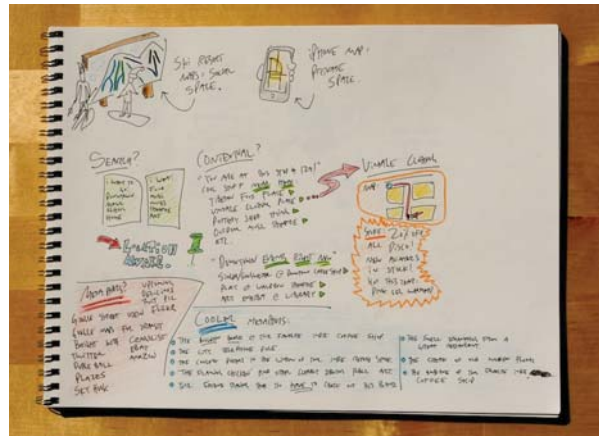
"Happy painting and God Bless, my friend."
— Bob Ross

Thursday, April 23, 2009

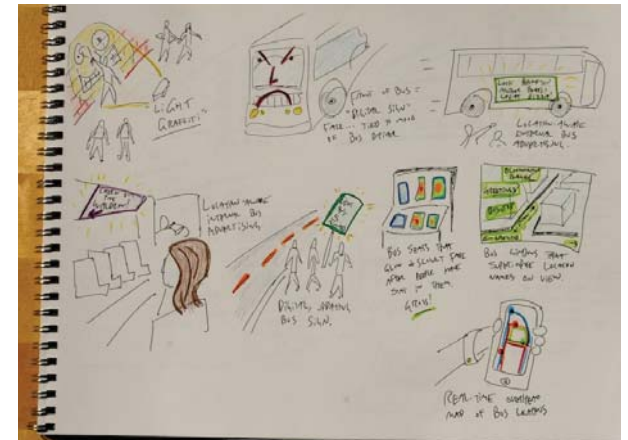
81 Thursday, April 23, 2009
"Boy scout" Slides



Thursday, April 23, 2009



84 Thursday, April 23, 2009

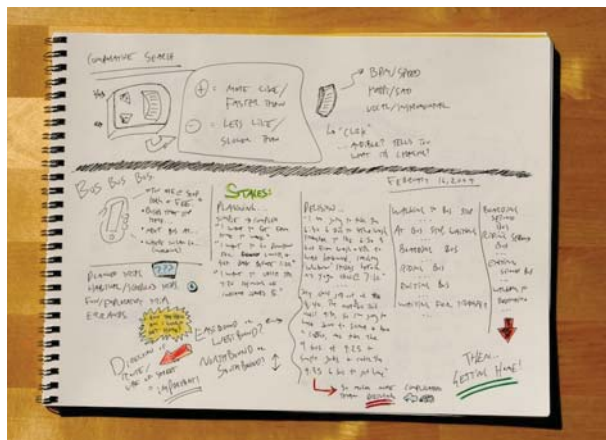


82 Thursday, April 23, 2009



85 Thursday, April 23, 2009

86

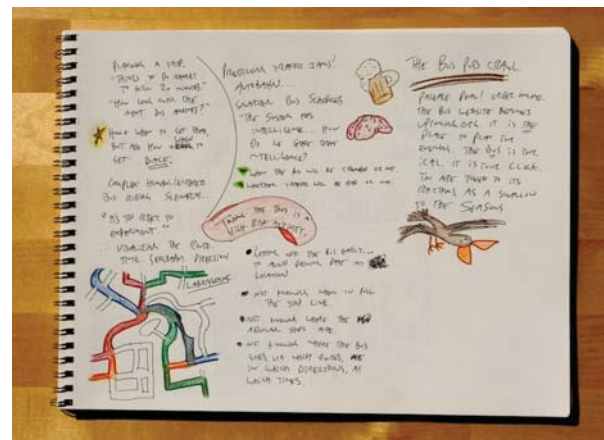


Thursday, April 23, 2009



87

Thursday, April 23, 2009



88

Thursday, April 23, 2009



Thursday, April 23, 2009



90

Thursday, April 23, 2009



91

Thursday, April 23, 2009

92

