

interaction design

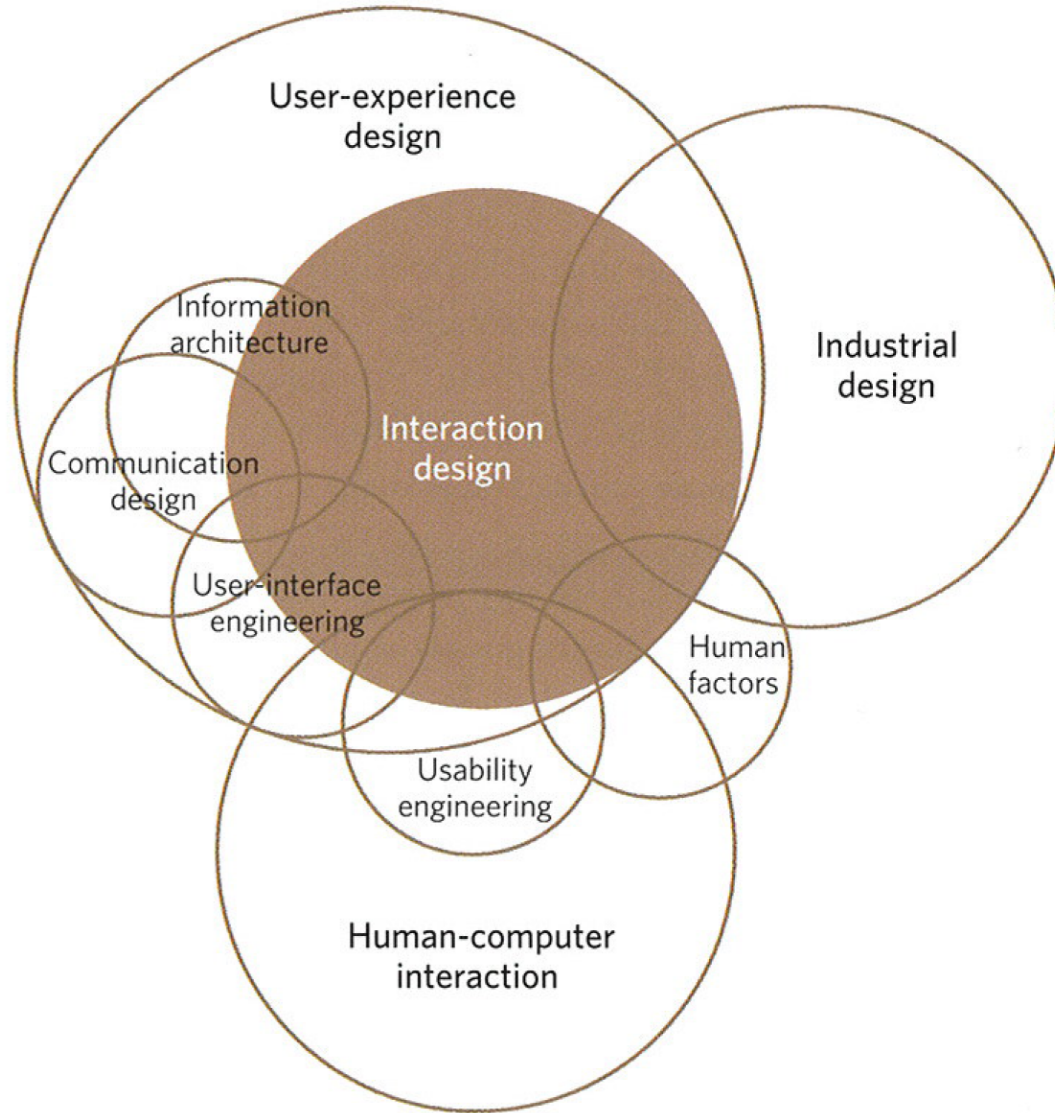
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Interim Director of Design Strategy

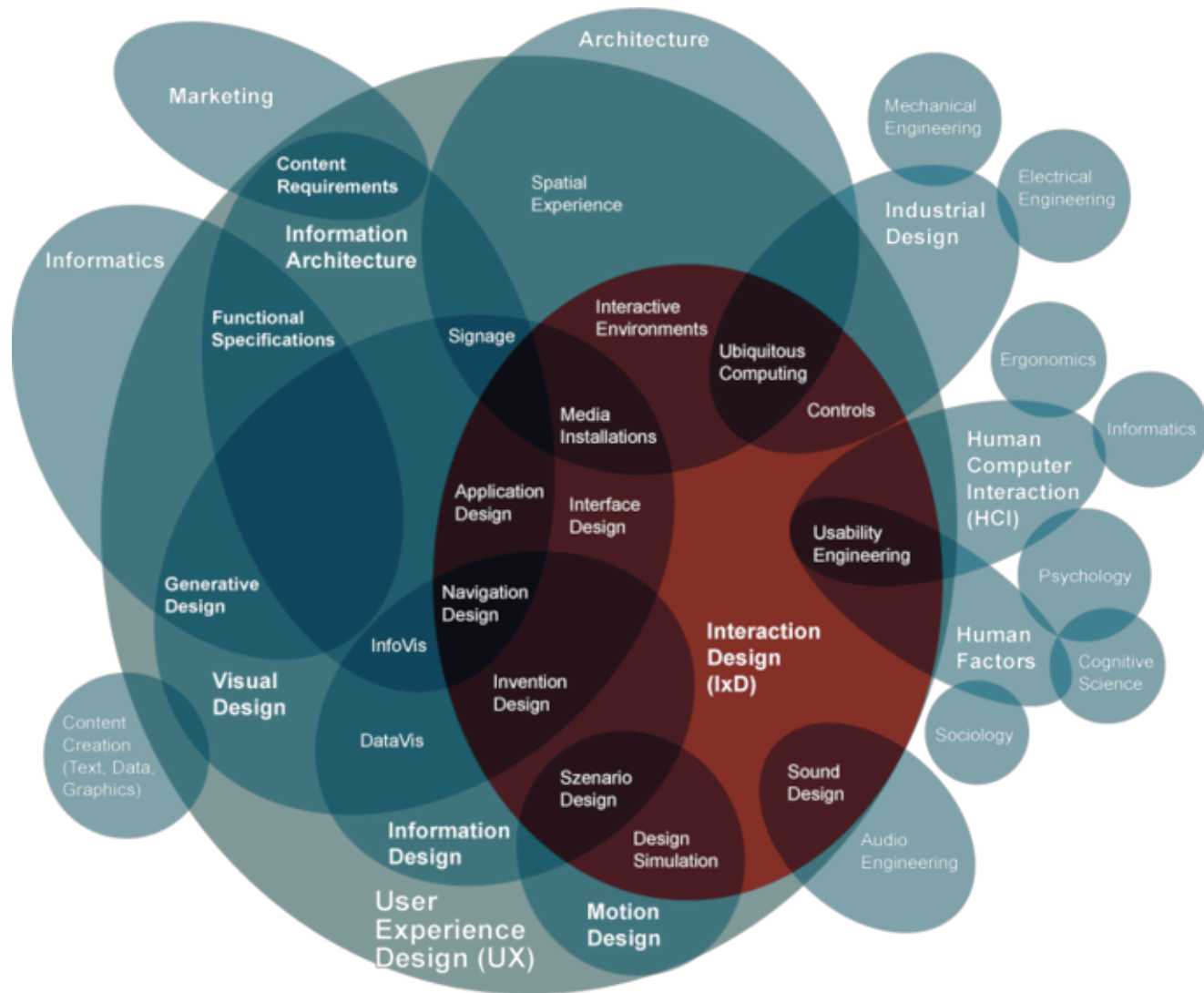
Motorola Mobility | Consumer eXperience Design

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interaction design



interaction design



interaction design > interface design

Structured ways for effectively taking what you have learned about people and transforming it into something that provides value + delight

Modeling

Framing the solution space

What is it? How does it connect to other things? How does it meet users' goals?

Structure...Flow...Process

Designing how the system will work

How big is it? What can I do with it?

Screen design

Designing how the screens will work

What goes where? Why?

modeling

modeling: what is it + why is it important

Modeling

Defining an visual abstraction of your solution that provides the big picture of your system

Framing the solution in context of the environment + other systems

Frames the solution in the end user's context

Why do it?

Helps define initial scope of the system

Defines other influences on the system or on users of the system

Builds consensus among team members

Frames big ideas for stakeholders

modeling: human centered concept models

How do users think about your system?

What are the activities that they can do?

What are the different types of users that will use your system?

What are the different modes in which they might use it?

What are the different phases that they might associate with your system?

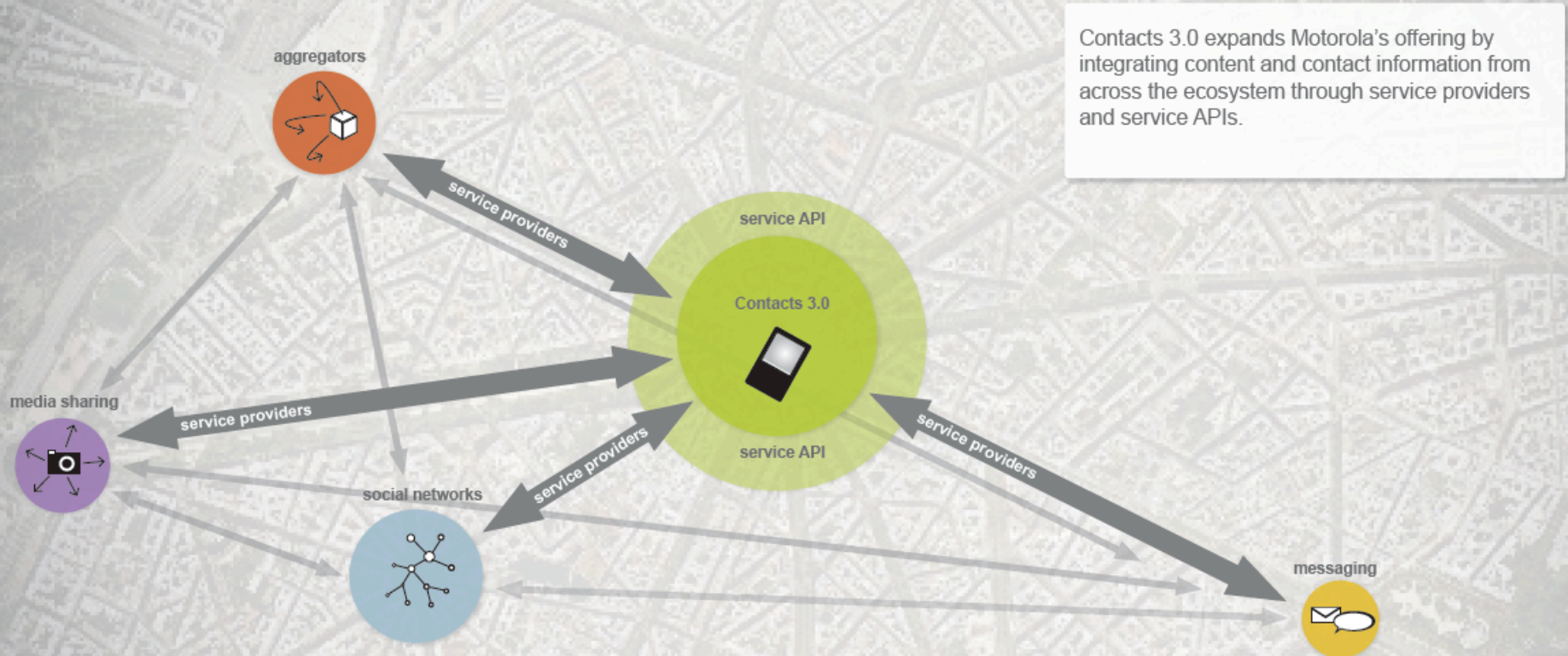
How is it different than what they used before?

Is there a familiar metaphor that will help users understand your system?

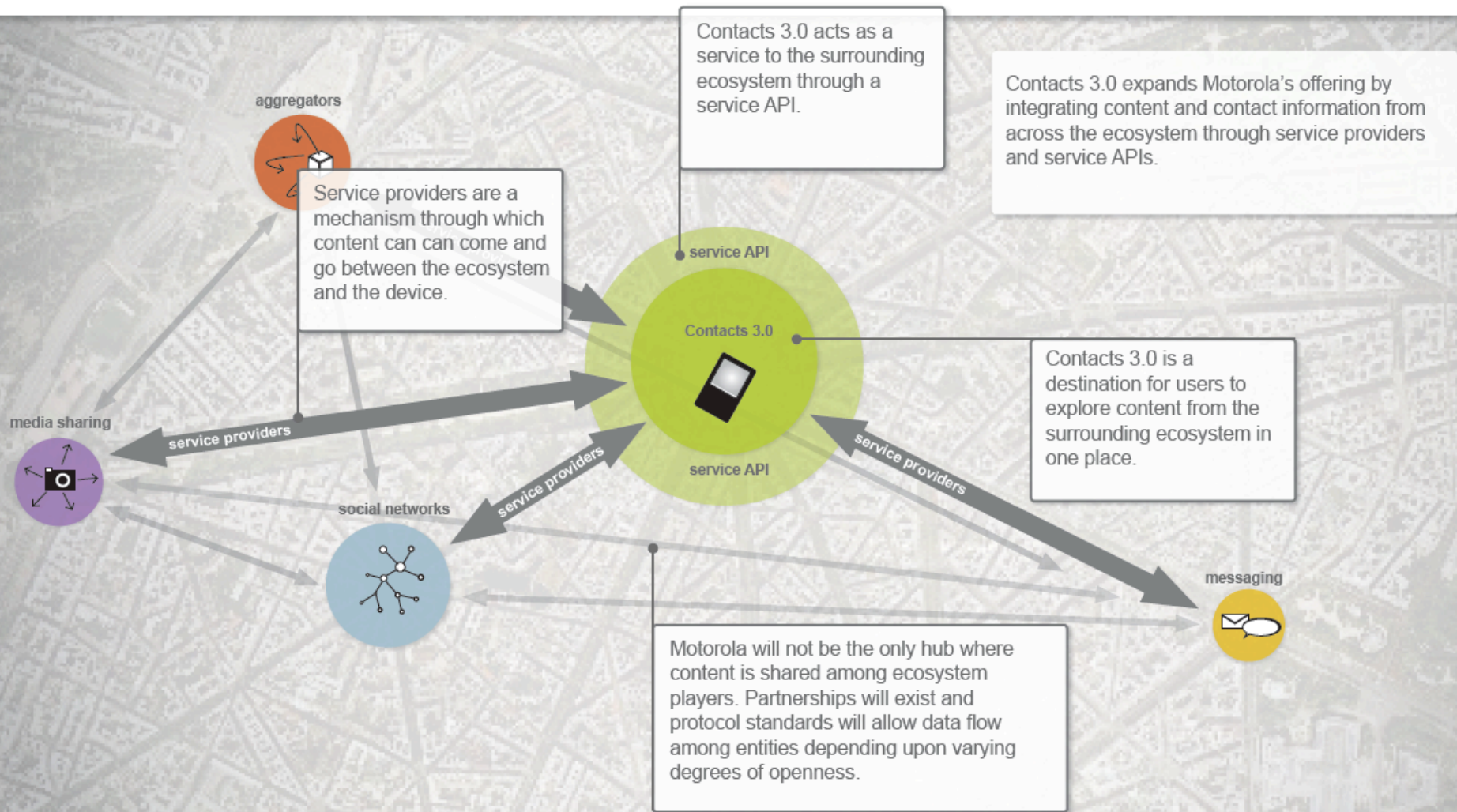
modeling: using metaphors



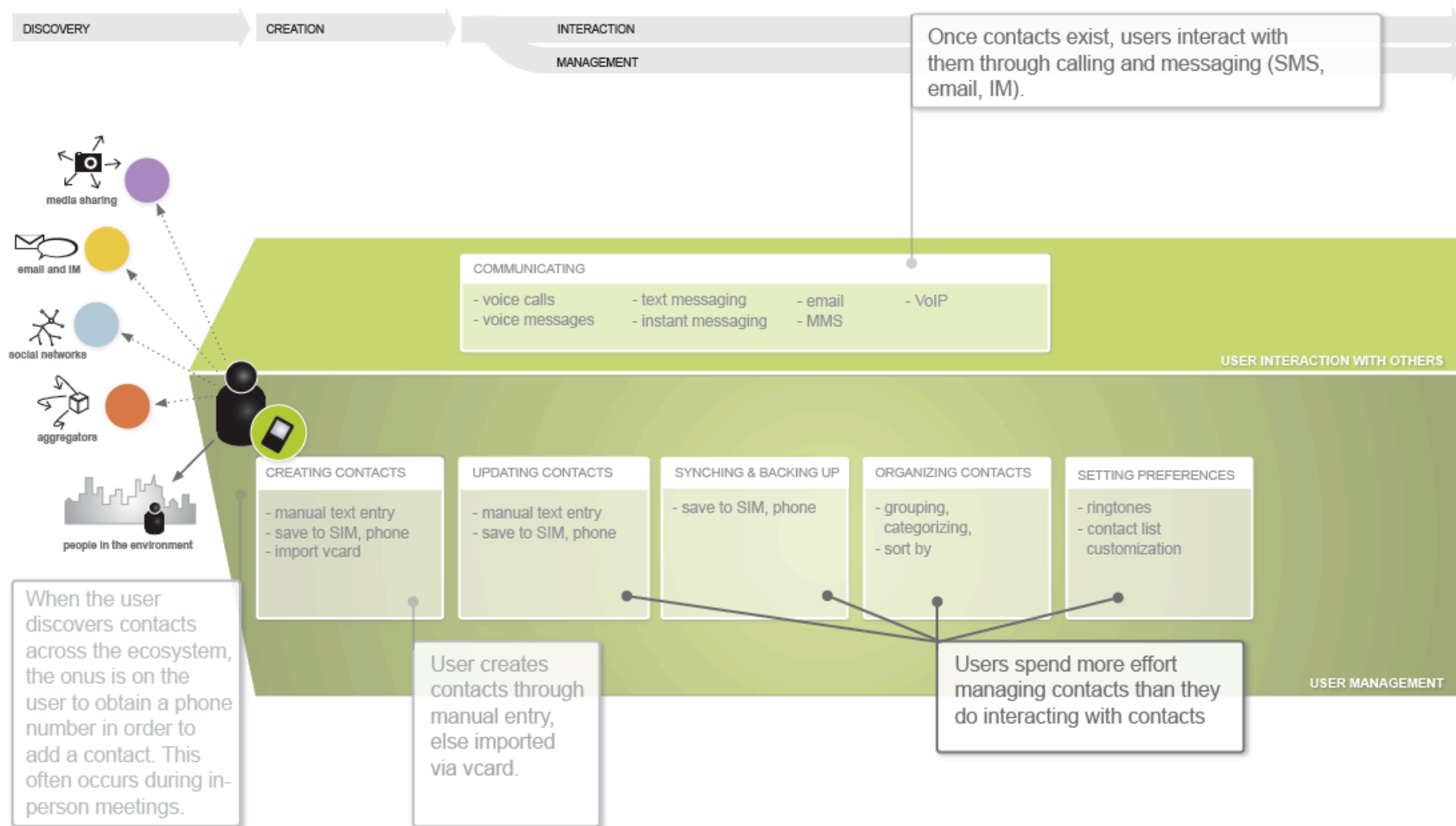
modeling: using metaphors



modeling: using metaphors



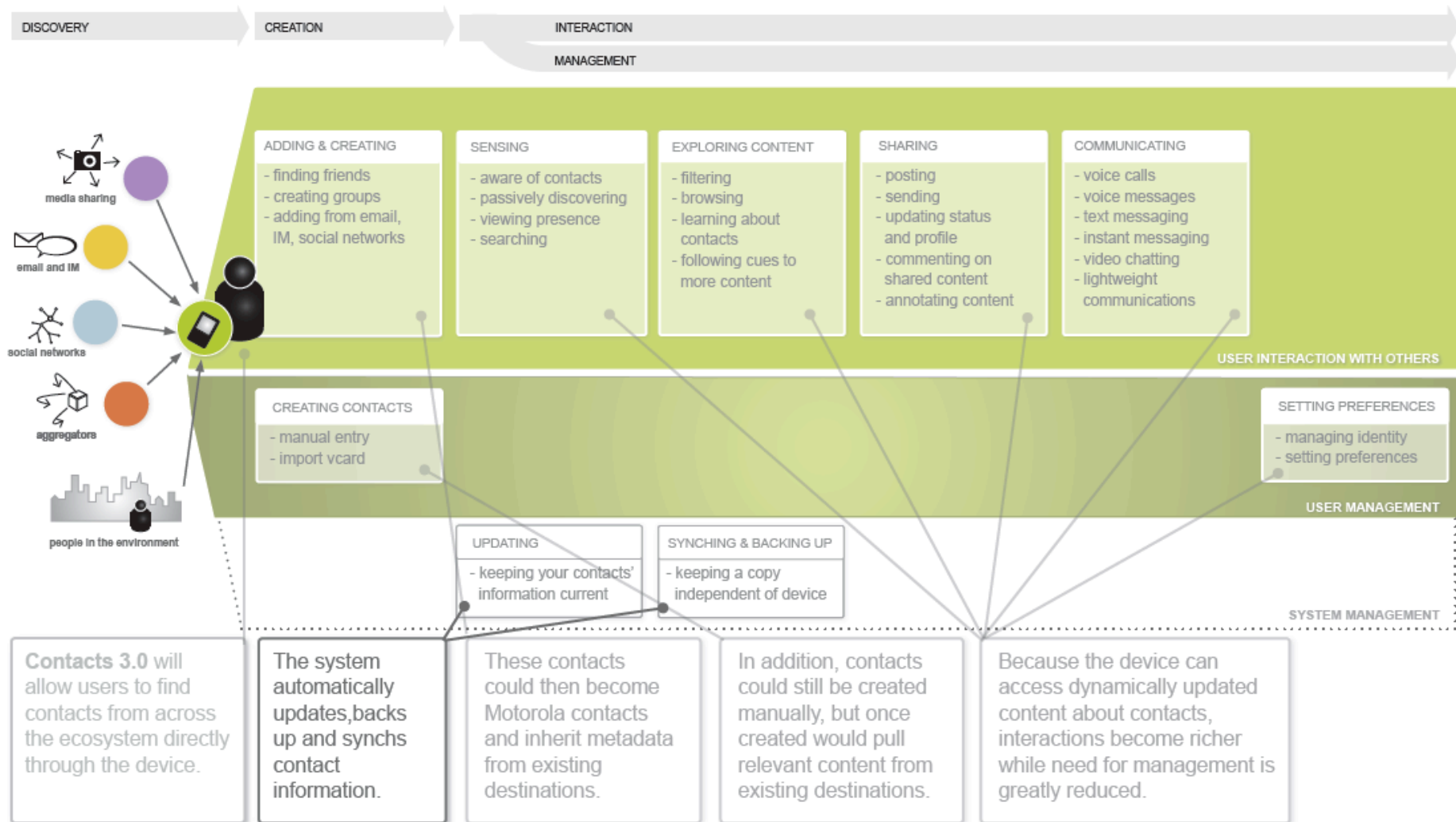
modeling: before + after



CXD: Experience Planning + UI Design, Motorola Labs | Contacts 3.0

Motorola Restricted

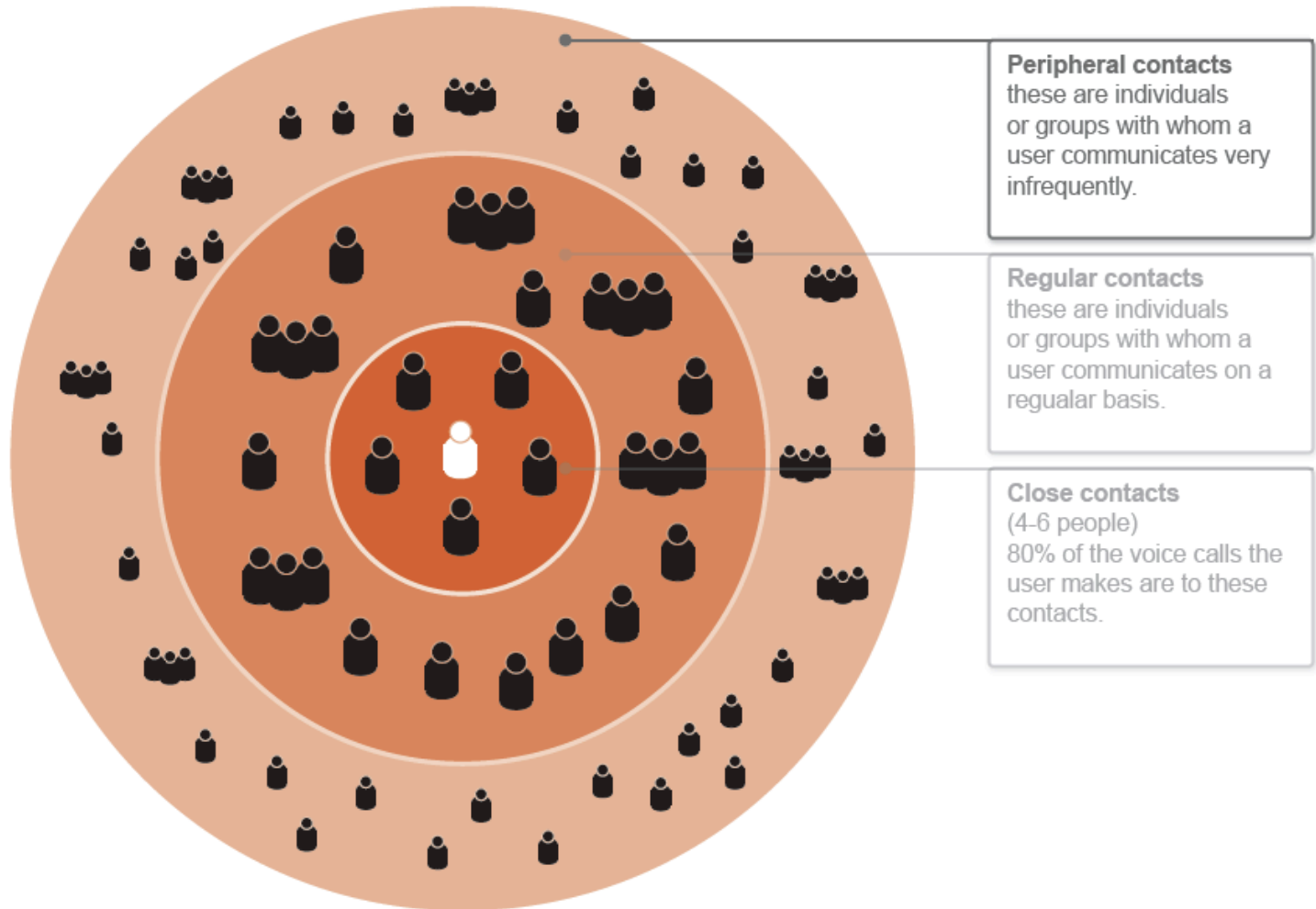
modeling: before + after



modeling: mental models

User Mental Model

- > Close contacts
- > Regular contacts
- > Peripheral contacts

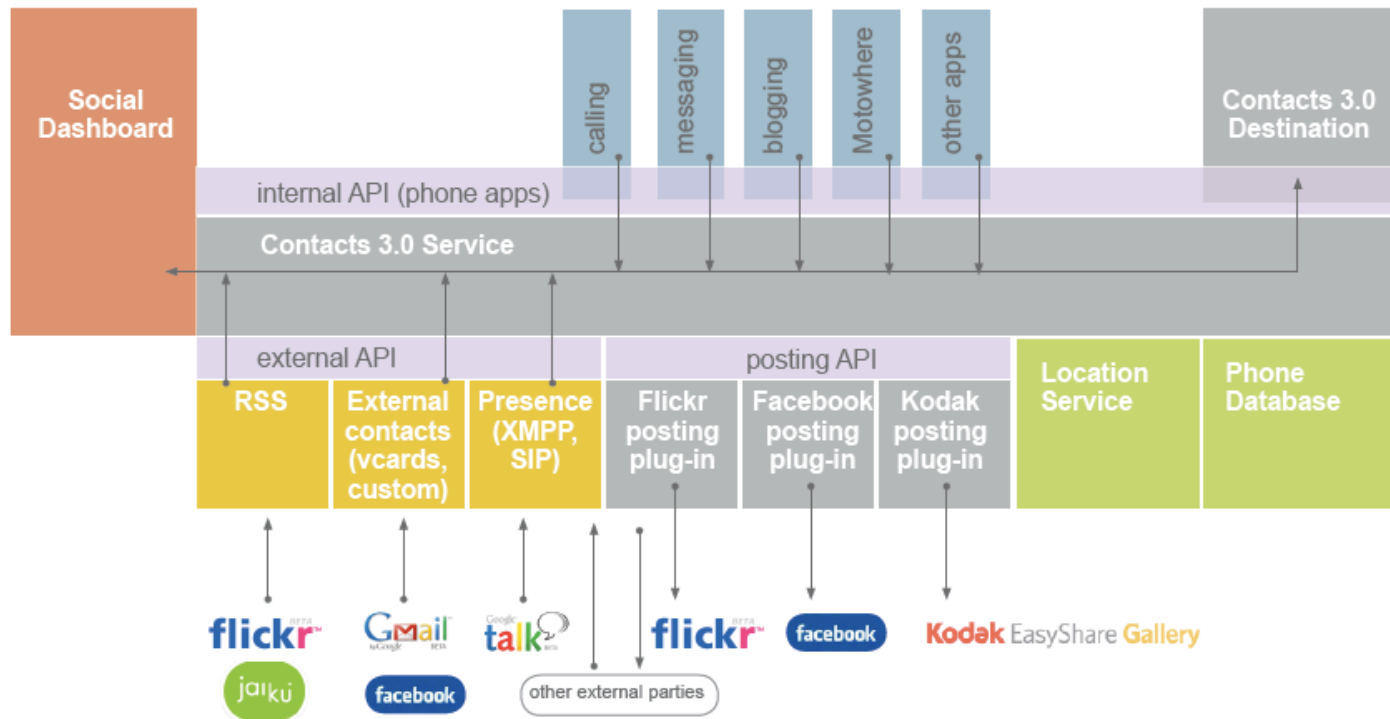


modeling: system diagrams

Software Architecture: Destination *and* Service



No more silo-ed applications



modeling: content types



Demanding

You need to know about me right now!

Things I have to or should acknowledge

- Calls
- Messages
- Reminders



Patient

I'm here when you need me.

Tracking information

- Weather
- Call logs
- Location information
- Battery
- Patterns of use



Collected

I've got what you need to know and you *should* know this.

Tapping the collective consciousness: learning, connecting, discovering...

- ...with a librarian
- Structured, organized information
- News
- SN updates



Cool

Let's go check some stuff out.

...with a DJ

- Recommended content
- Media from friends

modeling: user types



Peng, 47
Owner of 3 small retail stores
Wuhan, Hubei, China

I'm efficient and organized with my family and business.



HOW I COMMUNICATE

Diagram showing communication flow: Email, Phone, Face-to-face, Social media, and In-person. All are marked with 'Yes'.



MOBILE DEVICE

Measures device activity: Messages, Calendar, Office Manager, Data Usage, and Data Plan. All are marked with 'Yes'.



APPS & SERVICES I USE MOST

Includes icons for Calendar, Location, Books, People, My Primary Devices, Phone, Camera, Laptop, and Fax Modem.

PLANNED – ACCESIBLE – DETAILLED

Peng is a 1st generation Chinese entrepreneur. He owns three small retail clothing stores, with headquarters located on the main street of Wuhan. His idea is a lot of networking for business to find good suppliers, “look the goods” with customer officials, and make sure that the stores are running smoothly. He has been frequently ordered to manage the stores and to his suppliers. Peng has his staff, but it is primarily used for operations. Instead, he uses the staff for larger distribution and public travel within the city. He has a very good understanding of his business.

Peng is married with 1 daughter, Peng, who is 16. He has a helping hand in the national college exam. Her teachers tell her to do everything to him and she will be able to get a good job to manage her schoolwork. His wife works full time as an elementary school teacher. The communication among the family is very good as they all stay together for dinner. Peng is responsible for his elderly parents. They live in close distance away. Peng checks on them regularly, often from home and visit them around for fun.

It is important for him to work proactively to make sure his business is profitable and his family is well cared for. His business has to keep up with him and help him to live his life.

MY LIFE GOALS

- Total accessibility - my family and work suppliers connect me no place, any time
- No unpleasant surprises – I've planned ahead so I can relax and do what I need to do
- Project myself as hard working and successful people so others will see me as organized, a tough negotiator and a good businessman to work with

MY DEVICE NEEDS

- Efficiently communicate with my family – call my parents, text my daughter, manage my daughter's homework via teacher's text app
- Network for business – arrange and coordinate appointments with suppliers, local officials and customers on the go, from any location
- Take and send photos - of goods I might buy or sell with customers or partners
- Know how to get around as fast as possible - find directions to unfamiliar meeting locations and plan the best route on public transportation

PURCHASE MOTIVATIONS

- Dependable – use good and good battery life
- Efficient – get the job done well with no lags
- Professional enough - looks sensible, respectable



中国中央电视台



I am successful – I want to look successful.



HOW I COMMUNICATE

Email	100%
Skype	100%
Phone	100%
Web	100%
Account	100%
Calendar	100%
Parents	100%
Daughter	100%

MOBILE DEVICE

Apple iPhone 5s and Apple Watch	100%
BlackBerry	100%
Android	100%
Windows Phone	100%
Smart TV	100%
Smart Car	100%

MY LIFE GOALS

- Be seen as successful and enhance my status, both professionally and socially
- Be connected to my family while also having the freedom to pursue a successful career that affords a comfortable life
- Always be ahead of the curve, and be the first to have the next "it" product

MY DREAM IDEAS

- Always be available to my clients and colleagues all hours of the day – my only mobile is essential to me as my robust calendar and contacts folders
- With capabilities so that I can access the internet on the go
- A great music player – my music keeps me going between client meetings and helps me stay energetic throughout the day

APPS + SERVICES I USE MOST

EMAIL	PHONE
CALENDAR	MOBILE

MY PRIMARY DEVICES

PHONE	LAPTOP	SMART TV	GPS
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MY MEDIA





ACHIEVEMENTS – WHEN – INVOLVED

Adriano works hard and it pays off. While preparing a good life for his family, his career usually comes first in priority. Though he works long hours from 8am to 6pm, he still has the time to do things that bring him joy and satisfaction. He is a father and a coach. Successfully sharing the image he projects in college and at work, he always has and uses the correct, most useful technology.

ADRIANO'S SUCCESS

Adriano is to be the most informed and well-versed about technology among family and friends. Married with 2 children, ages 12 and 15, Adriano is pleased that he can deliver what he wants. Adriano, as he says at home with his wife, "I have the time to do things that bring me joy and satisfaction. He is a father and a coach. Successfully sharing the image he projects in college and at work, he always has and uses the correct, most useful technology."

PURCHASE RECOMMENDATIONS

Current technology, refined and fashionable look, trendy brand

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[illegible][illegible]

My son is my life, my friends are my life-line.

Cate, 33
University of Glasgow
Reading, England

Cate, 33
University of Glasgow
Reading, England

OPTIMISTIC + GIVING + OUTGOING

Cate is a single mum and lives with her two teenage sons on the outskirts of Reading, England. Though she holds a steady job as a retail manager, she has a very busy life. She has a 10-year-old son, Alex, and a 13-year-old son, Oliver. Her parents are supportive, but hope Cate can find a way to make her own decisions for her own life.

As a young mum, Cate is a busy bee. She always gets up early in the mornings and has to make sure her children are ready to start school. She usually starts her day with a cup of tea and a shower. She then goes to work. After an afternoon break, Cate responds to her 200+ text messages from girlfriends while driving a shopping car to the supermarket.

After work, Cate often returns home to a house with her family. Her kids watch television, and sometimes send her a text. On Friday, Cate sometimes makes use of internet and goes with her girlfriends on SMS. On weekends, she likes to take her dog and a couple of friends to the countryside. Cate takes a lot of pictures with her phone or her digital camera. She then shares her albums with friends on Facebook or SkyRing.

Recently, Cate started dating again and was contacted by her friend Sam on her smartphone. An impression of what Cate does screens her smartphone with emails.

HOW I COMMUNICATE

	Family	Friends	Colleagues	Sex
Text	0	0	0	0
Instant	0	0	0	0
Phone	0	0	0	0
Mail	0	0	0	0
Blog	0	0	0	0
Parents	0	0	0	0
Friends	0	0	0	0
Colleagues	0	0	0	0
Sex	0	0	0	0

MOBILE DEVICE

	Microsoft	BlackBerry	Apple	Samsung	Other
Mobile Phone	0	0	0	0	0
Smart Phone	0	0	0	0	0
Tablet	0	0	0	0	0
Other	0	0	0	0	0

APPS + SERVICES I USE MOST

	WhatsApp	Facebook	Twitter	Instagram	LinkedIn	YouTube	Google+	Dropbox	OneDrive	Google	Apple	Microsoft	Other
WhatsApp	0	0	0	0	0	0	0	0	0	0	0	0	
Facebook	0	0	0	0	0	0	0	0	0	0	0	0	
Twitter	0	0	0	0	0	0	0	0	0	0	0	0	
Instagram	0	0	0	0	0	0	0	0	0	0	0	0	
LinkedIn	0	0	0	0	0	0	0	0	0	0	0	0	
YouTube	0	0	0	0	0	0	0	0	0	0	0	0	
Google+	0	0	0	0	0	0	0	0	0	0	0	0	
Dropbox	0	0	0	0	0	0	0	0	0	0	0	0	
OneDrive	0	0	0	0	0	0	0	0	0	0	0	0	
Google	0	0	0	0	0	0	0	0	0	0	0	0	
Apple	0	0	0	0	0	0	0	0	0	0	0	0	
Microsoft	0	0	0	0	0	0	0	0	0	0	0	0	
Other	0	0	0	0	0	0	0	0	0	0	0	0	

MY PRIMARY DEVICES

	Mobile Phone	Tablet	Laptop
Mobile Phone	0	0	0
Tablet	0	0	0
Laptop	0	0	0

MY MEDIA

	Radio	TV	Music	Books	Games	Apps	Other
Radio	0	0	0	0	0	0	0
TV	0	0	0	0	0	0	0
Music	0	0	0	0	0	0	0
Books	0	0	0	0	0	0	0
Games	0	0	0	0	0	0	0
Apps	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0

MY LIFE GOALS

	Don't want to miss out on anything in my growing son's life.	Don't want to miss out on anything in my growing son's life.
Don't want to miss out on anything in my growing son's life.	0	0
Don't want to miss out on anything in my growing son's life.	0	0

MY LIFE GOALS</



My phone is my lifeline and disaster preventer.



HOME & COMMUNICATE



MOBILE DEVICE

Michelle Anderson
Regional sales manager
Hoboken, NJ

PLANNED – ACCESSIBLE – DETAILED

Michelle is divorced and has 2 sons, Ted, 13 and Julian, 10. She has a couple of parents for her ex-husband. He is retired and they share custody, splitting weekend time for her and her two sons. Ted lives in a hockey region, which requires a lot of transportation and coordination. Julian lives in a soccer region. They live on the phone a huge time a week and Michelle says she uses the Connecting feature a lot. Michelle has a couple of friends who live in the same area as her sons. She knows that they can't call her time to time but they can't find it difficult to find the time to do so.

Michelle is an accomplished, balanced career woman. Michelle is a registered sales manager for an education software firm. She has obtained her master's for their sales and marketing for her last year and time allocation. Her clients include local, national and international. She lives in New Jersey, but travels to NYC and the east coast region.

Michelle is an entrepreneur who runs a business – reliable help for accountability, jogging time and work demands around the clock.

MY LIFE GOALS

- Make life simpler by being proactive – knowing about upcoming situations
- Be available to my adolescent sons, despite working a full-time schedule
- Be perceived as accomplished at work – still seek professional advancement

MY DEVICE NEEDS

- Anytime, anywhere availability – my sons' school and my collision class can reach me by any means
- Keys – a **SMARTLY** available to easily email when I am away from my laptop
- No failures – a durable, high quality phone with long battery life that I can trust
- Drive hands-free – using Bluetooth because NJ is a hands free state and safety is important

PURCHASE MOTIVATIONS

- Dependability – no present disasters, if my communication fails
- Not too complex – yet all the essentials: work email, calendar and maps with no focus on Affordability – I don't have any extra money to spend on a flashy phone, but I want quality

APPS + SERVICES I USE MOST

- Calendar
- Weather
- Navigation
- Maps

MY PRIMARY DEVICES

- MOBILE PHONE
- LAPTOP
- SMART TV
- MP3 PLAYER

MY MEDIA

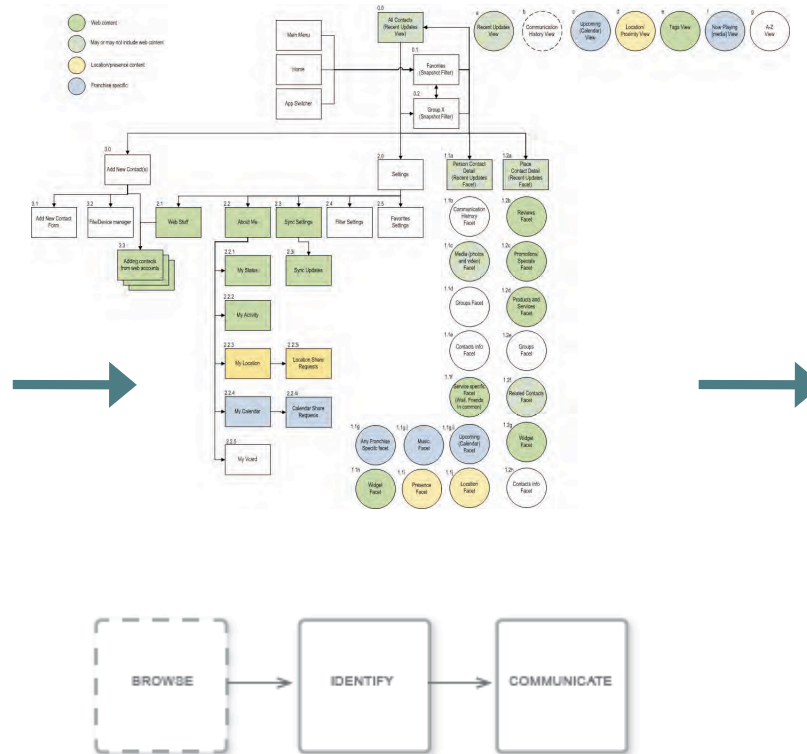
- THE WALL STREET JOURNAL
- THE NEW YORK TIMES
- THE WALL STREET JOURNAL
- THE NEW YORK TIMES

structure...flow...process

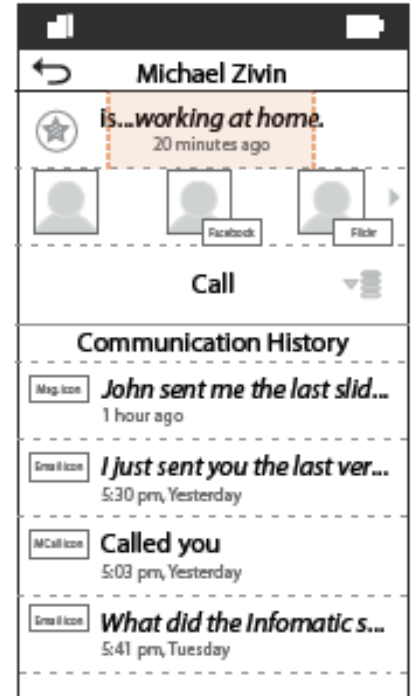
structure...flow...process: putting it all together



concept models

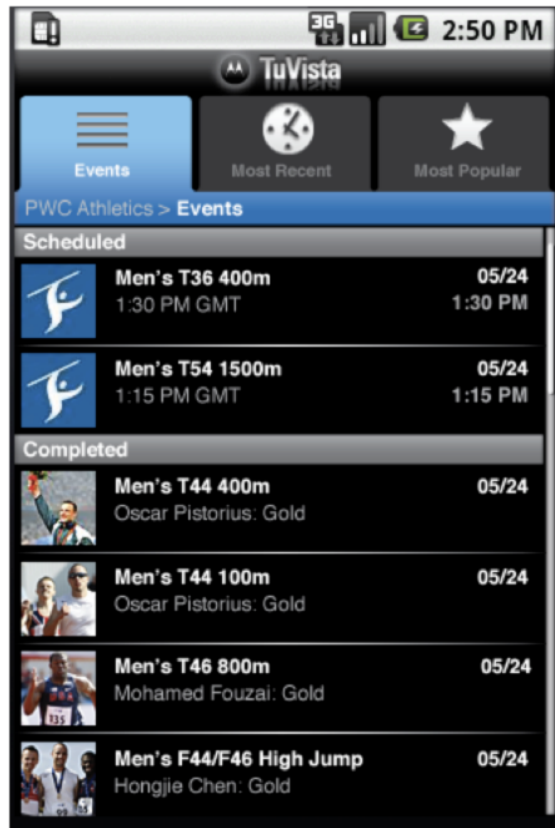


information architecture
use cases + user flows

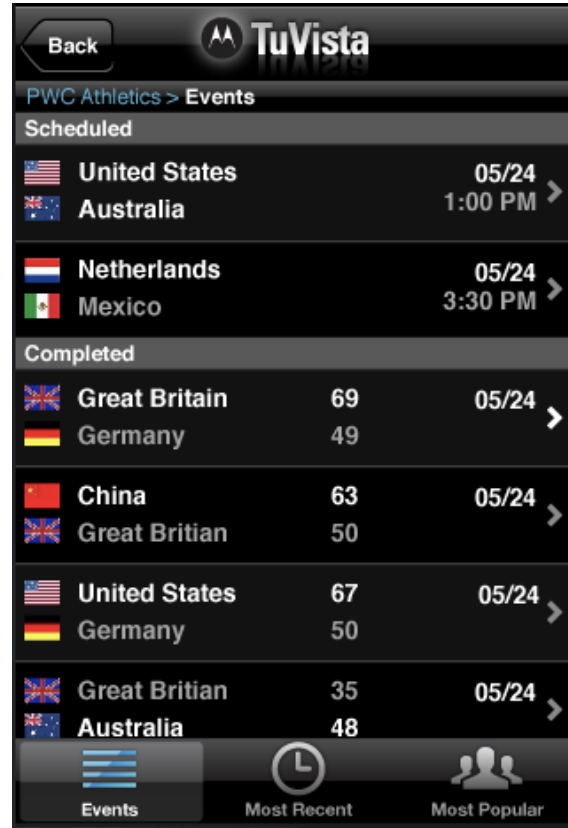


screen wireframes

structure...flow...process: know your sandbox



Android



iOS



Blackberry

structure...flow...process: user goals

What should your system do?

Functionality should map to user goals

life goals: beyond the system, but help explain why trying to accomplish end goals

experience goals: how someone wants to feel while using the product

end goals: outcomes users expect from using the system

structure...flow...process: interaction framework

How should your system be structured?

Cooper's Interaction Framework

1. What is the form factor and input methods?
2. What are the different views?
3. What are the functional and data elements? (basically, parts of a larger key path)
4. What are the functional groups and hierarchy? (sequence, groupings of containers, functionality – based on form factor and input methods)
5. What does the interaction framework begin to look like?
6. What are the key path scenarios? (primary actions and pathways through the system, e.g. viewing and composing emails)

structure...flow...process: a few notes

It's not a linear process – iterate back and forth between user flows + preliminary wireframes

Showing user experience flows vs system/business flows

Flows demonstrate users movement through time – how the user begins, ends and the clearly marked path that they take

Demonstrating cause + effect

Consistency is key in diagramming systems – there is no “right” visual language

Visual vocabulary – borrowing and adapting to make it your own

structure...flow...process: use cases

Use Case Catalog

[Click here to access this document on Compass.](#)

Key

C = Core
I = Important
N = Nice to have

Communicating	Priority
Call a Contact	C
Send Message (or reply to) a Contact (SMS/MMS)	C
Send Message a Group (SMS/MMS)	C
Email a Contact	I
Email a Group	I
Send Lightweight Communication to Contact	N
Send Lightweight Communication to Group	N
Instant Message a Contact	N
Instant Message a Group	N
Send Voice note to a Contact	N
Send voice note to a Group	N
Send Message to a Contact through an online service (i.e. Facebook)	C
Post on someone's Wall on Facebook (or equivalent for another Service)	C
Request info from a contact (Location, Contact Info, etc.)	I
Comment on Contact's media	C
Learning	
View Contact's Status Message from online services (i.e. Facebook)	C
View Contact's Mood	N
View Contact's exact Location (cross-streets, address, dot on map)	I
View Contact's vague Location (City, State)	I
View Contact's user-defined Location (home, store, tag, etc.)	I
View Contact's time zone	I
View Contact's distance from me (exact - 2 mi)	I
View Contact's distance from me (general - same city, near, etc.)	I
View Contact's Motion Presence (moving/not moving; duration)	I
View Contact's preferred communication method	I
View Contact's Music Status	I
View Contact's current/recent photos	C
View Contact's comment on a photo	
View Contact's recent posts/online activities (short: eg. Twitter)	C
View Contact's recent posts/online activities (long: eg. Blog)	C
View Contact's comment on a Blog post	
View Contact's Facebook Profile update	
View Communication History with Contact (Recent Calls, etc.)	C
View Business specific data (Hours, Locations, etc.)	I
View Contact's IM Status now	I
View Contact's Calendar availability	I
View Contact's Calendar	N
View Contact's contacts, network	N
View Contact's online profiles (Facebook, Myspace, LinkedIn)	C
View Contact's weather where they are (attach Widget to a Contact?)	I
View Contact's Ring Profile (Ring, Vibrate, etc.)	N
View basic Contact Information (Phone number, Email, IM, etc.)	C

Sharing

(From My Info section on the Social Dashboard)

Set my Status (make avail. OR push)	C
Set my photo (to appear in others' Contact lists)	C
Set my Mood (make avail. OR push)	N
Share (make avail. OR push) my exact Location	I
Share (make avail. OR push) my user-generated Location	I
Share (make avail.) my Motion Presence	I
Share (make avail. OR push) my vague Location (City, State)	I
Share (make avail. OR push) my Time Zone	I
Share (make avail. OR push) my Calendar	I
Share (manage permissions for) my current media (what I'm watching, Blogs, Music?)	C
Share my preferred communication method	N
Share (make avail.) my IM Status	I
Share my online identities (url to any online profiles that a user has)	C
Share myself as a Contact (my Vcard)	I
Share my Contacts/my Network	
Make an introduction to a Contact (like LinkedIn) (sending Contact Info (like sending Vcard))	I
Send content to a contact (link to media, Blogpost, etc.)	C
Send content to a group (link to media, Blogpost, etc.)	C
Send Meeting/Event Invite	I
Share business-specific data (if Contact is a business)	N

Searching/ Finding/ Browsing

	Priority
Search for a Contact on-Device	C
Search for a Contact off-Device	
Search by Tag	
Browse Contacts	C
Filter/sort Contacts Main by:	C
Tag	C
Location	I
Now (or recently) Playing [media]	I
Recency of communication	C
Recent Updates	I
Calendar (Upcoming)	
Franchise Specific activity (Now playing media)	
Group	
Favorites (suggested by frequency)	C
Filter/sort Social Dashboard Content (Device + Social/Web updates) by:	C
Group (from Contacts App)	C
Media Type (off-Device)	C
Recency (time-based by default)	C
Communication Type (on-Device: Calls, Messages)	C
Web (off-Device)	
Phone (all on-Device)	
Web Service	C

Creating

Create a Group (from Tags)	C
Create a Group from a shared group (a Contact send/shares the Group with another member)	C
Create a Group from a Message (sending to multiple recipients)	C
Publish Group (notify Contact that they are in a Group and give option to add group)	I
Create a Group from scratch	C
Create a Contact from Web Service (custom API for Facebook, etc.)	C
Create a Contact from another Device (including "kissing" and tagging location)	N
Create a Contact from scratch	C
Create a Contact from Structured Data	C
Request an Introduction to a Contact (requesting Contact Info for another person)	I
Rate Contacts (make Favorite)	N
Block a Contact	C
Block particular feeds for a Contact	C
Block a Group	C
Disband a Group	C

Syncing/Backing up/Storing

Sync/update Contacts with Web Service (matching John on Facebook to John in Contact List)	C
Sync/update Contacts with another Device (PC or second phone)	I
Save Contacts to SIM	C
Save Contacts to Phone	C
Save Contacts to Service (NGP - back-up?; carrier?; 3rd party?)	I
Customize/set preferences for Contacts Detail	C
Customize/set preferences for Contacts Main	C

Setting up

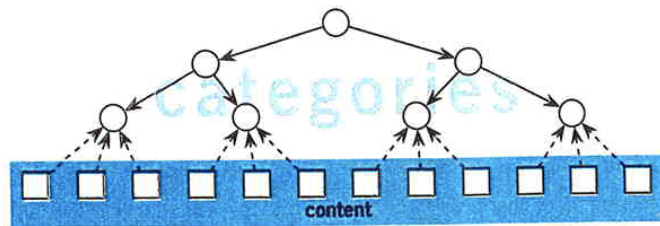
Import Contacts from Online Service	C
Reconcile/merge Contacts across information sources (matching John on Facebook to John in Contact List)	C
Set which content sources I want from a given Contact	I
Receive notification that a Contact has edited their Contact Info and there is a conflict (following Auto-Sync)	I
Respond to conflict alerts following automatic sync/updates with online services (in background)	I
Set sync (Web services) option to manual	C
Configure Automatic Sync	
Choose who to add from a given Service	C

structure...flow...process: use cases

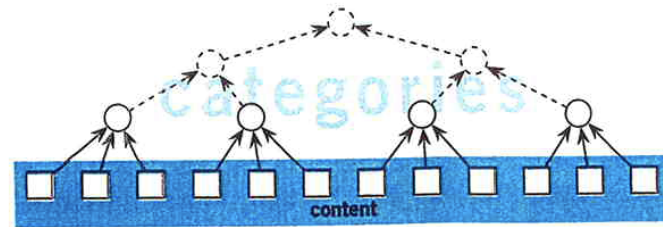
Identifier	Use Case	Priority		
<i>Communicating</i>				
A	Call a Contact	C	x	x
B	Text Message (or reply to) a Contact (SMS/MMS)	C	x	x
C	Text Message a Group (SMS/MMS)	C	x	x
D	Email a Contact	I	x	x
E	Email a Group	I	x	x
F	Send Lightweight Communication to Contact	N	x	x
G	Send Lightweight Communication to Group	N	x	x
H	Instant Message a Contact	I	x	x
I	Start a Group chat from Group Detail	I		x
J	Send voice note to a Contact	N		x
K	Send voice note to a Group	N		x
L	Message a Contact on online service (i.e. Facebook)	C	x	x
M	Communicate via service specific methods (i.e. Post on someone's wall on Facebook)	C	x	x
P	Request information from a Contact (exact location; duration, contact info)	I	x	x
	Request information from a Contact (Introduction to another Contact)			x
Q		C	x	x

structure...flow...process: information architecture

Ways to approach organizing information

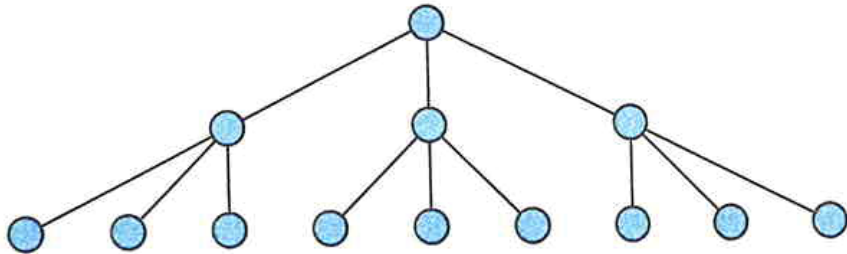


top down

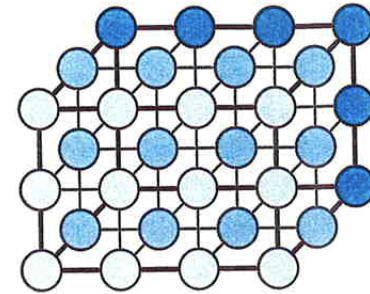


bottom up

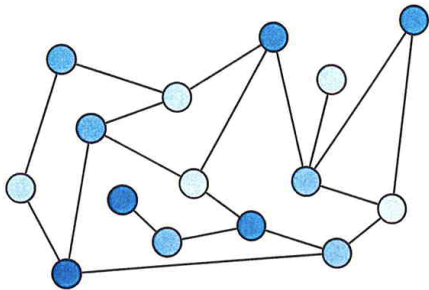
structure...flow...process: information architecture archetypes



Hierarchical parent and child relationships



Matrix 2 dimensions (sometimes 3?)

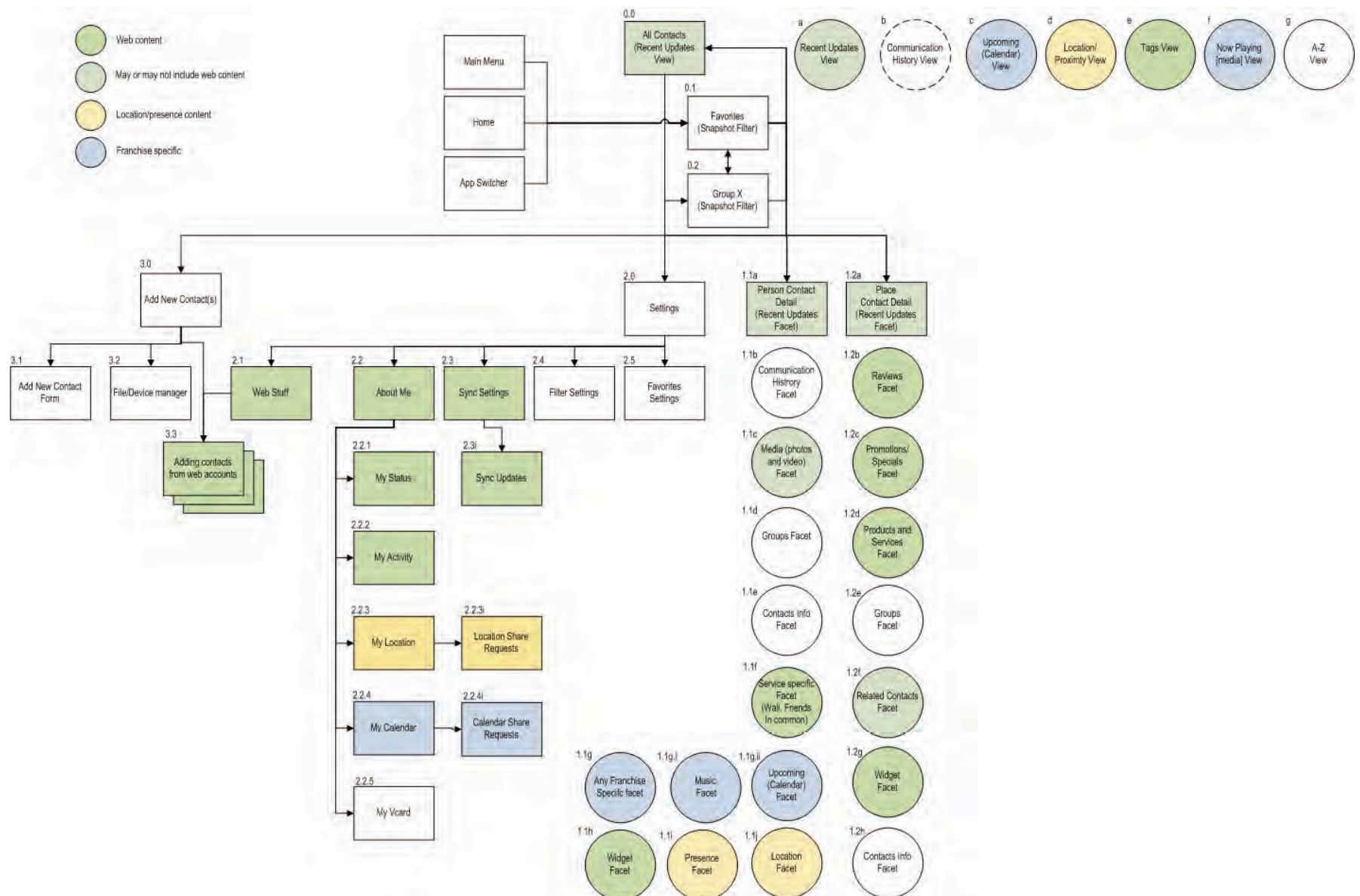


Organic no consistent pattern

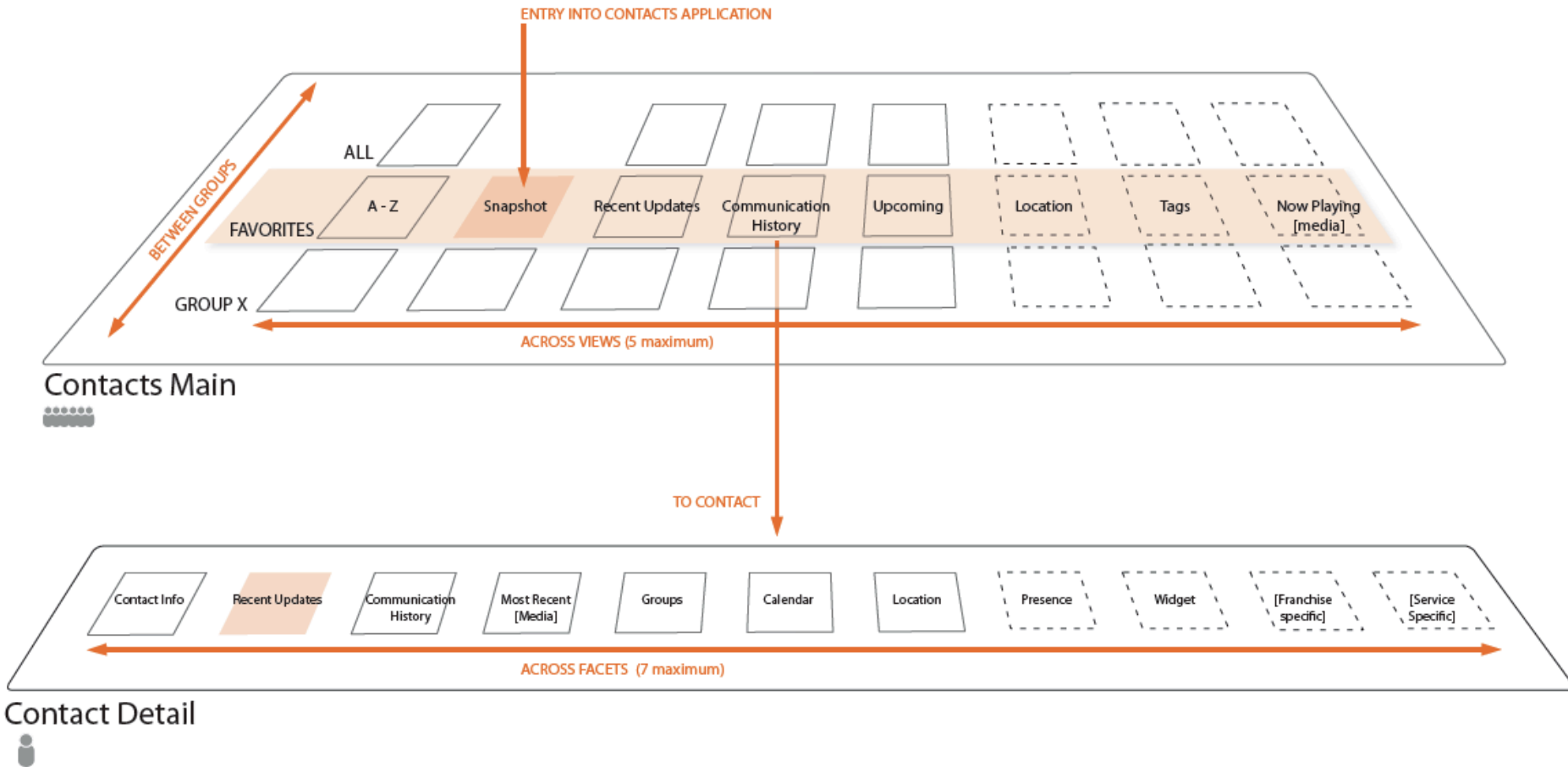


Sequential step by step

structure...flow...process: information architecture



structure...flow...process: interaction model



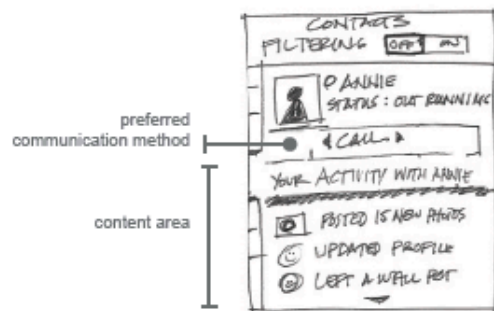
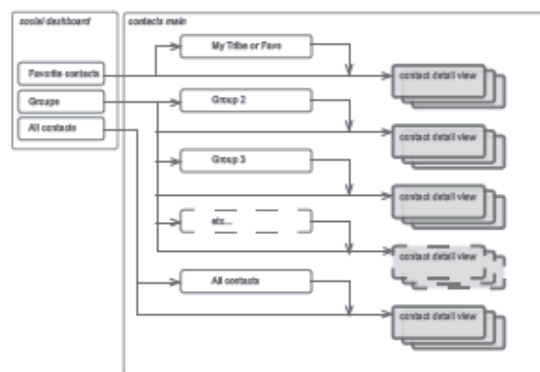
affordances/interface design: early definition + sketches

What is *Contacts Detail*?

The *Contacts Detail* screen offers the full view of any one contact. This screen will enable the user to both communicate with the contact and generally learn about the contact to the extent that the contact is willing to share (ie. status, recent content posts, communication preference, etc.)

What must *Contacts Detail* do?

- > enable easy action to communicate
- > reveal contact's current context (presence)
- > expose metadata for content activity (blog posts, profile updates, media uploads, etc.)



c1. Contacts Detail as a drill-down from list view



c2. Contacts Detail enabling lightweight communication



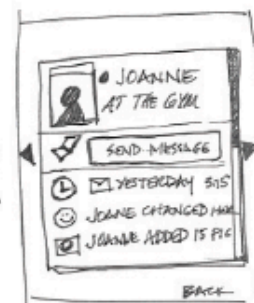
c3. Contact Detail through a location filter



c4. Contacts Detail showing motion presence and relevant content



c5. Contacts Detail suggesting preferred communication

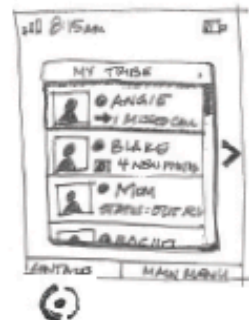


c6. Close up or zoomed in view of one contact in a group (left/right to see others)

affordances/interface design: early definition + sketches

Basic Call

A user could place a basic call directly from the Social Dashboard if a contact shows up as a result of a recent update. Otherwise, the user would go into Contacts Main to find a contact and place a call.



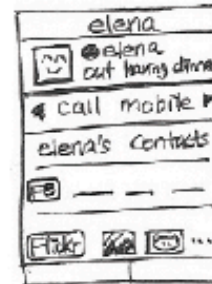
d1. Calling contact directly from Social Dashboard through send key



d2. Calling screen with presence information to provide context



d3. Contacts Main



d3. Contact Detail shows a voice call is suggested method



d3. Calling screen with presence information to provide context

screen design

affordances/interface design: interface design principles

Wodtke's 8 principles

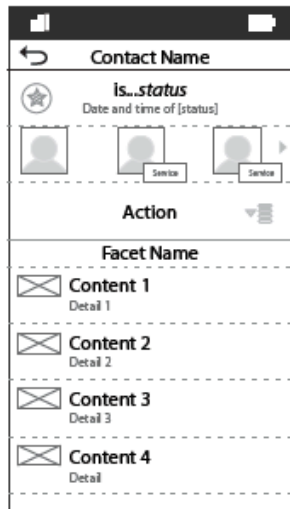
1. Design for way-finding – where you are, where you can go, how to get there
2. Set expectations and provide feedback
3. Ergonomics design
4. Be consistent and consider standards
5. Provide error support – prevent, protect, and inform
6. Rely on recognition rather than recall
7. Provide for people of varying skill levels – intermediate is fine
8. Provide meaningful and contextual help and documentation

Blueprints (or user flows and wireframes) are just good thinking written down

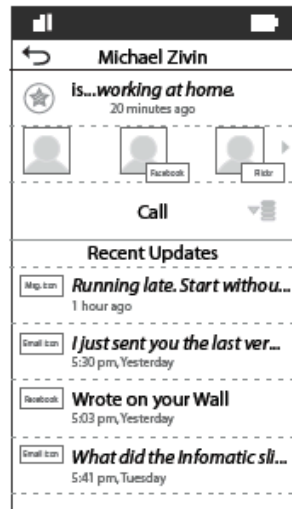
affordances/interface design: screens

Anatomy of the Contact Detail screen (for a person - 1/6)

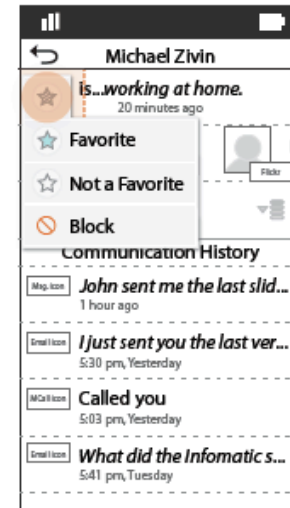
1.1 Person Contact Detail (Generic)



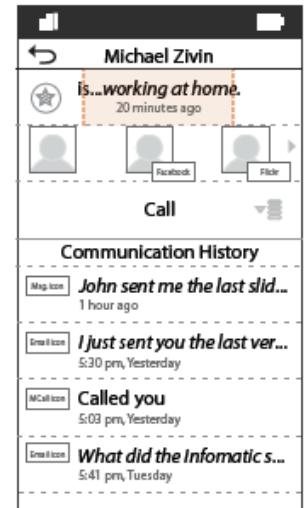
1.1a Person Contact Detail (Example)



1.1b Person Contact Detail, Favor/Block Dropdown



1.1c Person Contact Detail + Status touch area



Section 1: Favorite, Block, and Status

Basic

The next six pages will step you through the Contact Detail screen, explaining necessary widgets and interactions.

- ★ In this example, the contact has been nominated by the system as a "suggested Favorite" (striped star indicates their nomination). Go to *Groups Settings* (2.41) for more on how a contact becomes nominated a Favorite.
- ★ If the selects nominates the friend as a Favorite, they will appear in the Contacts Main "Favorite List".
- ★ If the "Not a Favorite" option is picked, the user goes back to being just an average Yoo-hoo.

Favorite/Block functionality

- ⊘ If the block option is picked, the Contact profile will grey out and only this dropdown will be accessible to the user (to Unblock).
- The icon of whichever option is picked, will remain on-screen to show what's active.
- The Favor/Block Dropdown will time-out after a few seconds of inactivity. Otherwise, closed by pressing the top of the menu (top star).
- The "Blocked" strategy requires proper investigation and design solution (see the Next Steps section).

Facebook Status

This area contains the latest update to the Contact's status (coming from Facebook, or other services that provide live presence/status information). If the Contact does not have an account with one of these services, this space will display the last contact/communication (sent or received) with that Contact or their last social update (Web activity).

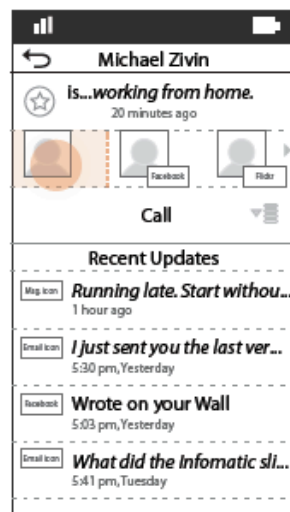
affordances/interface design: screens

Anatomy of the Contact Detail screen (for a person - 2/6)

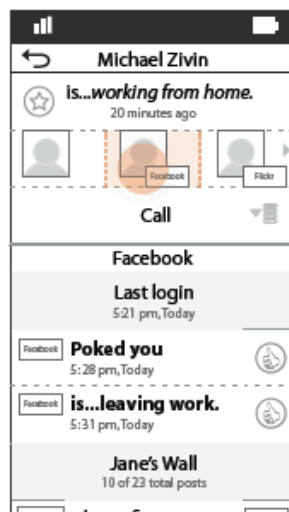


Section 2: Account Profile Images

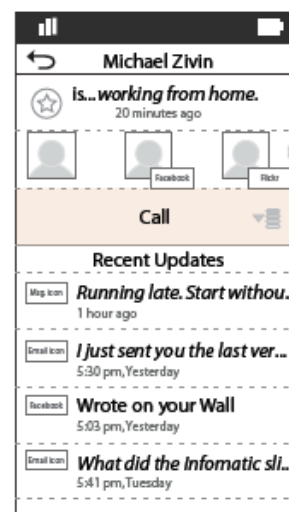
1.1a Person Contact Detail



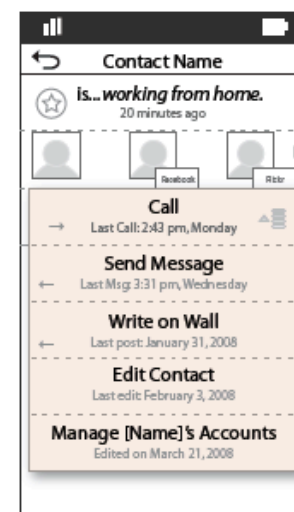
1.1f Person Contact Detail



1.1a Person Contact Detail



1.1a Person Contact Detail, Action Dropdown



Find Contact's [x] Account

The first photo in the row is the default profile photo for that Contact (what appears with incoming communication, such as the photo you see when Michael Zivin calls).

When the first photo in the row pressed the Recent Updates Facet (1.1a default) is displayed.

Rule: The profile image of the first service added to the Contact automatically becomes the default image for that Contact.

The default photo can be changed via the Contact Information Facet (1.1e) or the Media Facet (1.1c) within the Contact Detail. This may seem redundant, but the reason for both is to keep what's familiar while providing an alternative that just makes more sense.

Account Profile

Users can scroll horizontally through multiple accounts if more than two accounts are linked to the contact.

When pressed, the Facet for that Service becomes visible (i.e. when the Facebook Profile Photo is pressed, the Facebook Facet (1.1f) appears).



Section 3: Action Dropdown

Action line item

If a phone number is stored for the Contact, the Action line item will be 'Call'. If pressed a call will be placed to the Contact in view.

If there is no phone # for the Contact but the user has an email address or is a friend on Facebook, the Action line item will be 'Send Message.'

Action Dropdown

The Action Dropdown is lightly dynamic. The first option will always be 'Call' (if a # is stored) or 'Send Message'; but the remaining options will vary based on the facet that's available.

See the Action Dropdown Detail section of this document for the rules around what options will appear, when.

affordances/interface design: screens

Anatomy of the Contact Detail screen (for a person - 3/6)

What Is a Facet?

Facets are similar to Views. They share a common interaction (swiping), and information sets (Social Updates, Location, etc.). What makes a Facet different is that it is specific to a Contact, displaying content for one person only. A Facet is also visually unique in that it is situated on the bottom half of the screen. Each Facet contains a dynamic and focused set of information about a Contact that can come from local and/or Web sources. For example, the Communication History Facet is a log of all incoming communication from a Contact. This information is largely drawn on local on-device information and relies little on the Web. The Friends in Common Facet, on the other hand, is a list of Friends that the user and a Contact share on Facebook, is completely reliant on the web and the Facebook Service.

Facets are not to be confused with applications or lite-versions of applications. In some instances, such as the Calendar or Location Facet, the View may look similar to a device application, but it just provides a preview of information about a contact and does not replicate full functionality of the Calendar or Location application. It is possible to launch the full Calendar or Location application from those facets.

Basic Rules: 1. Facets should have a title at the top. 2. Facets are scrollable. 3. Every Contact Detail can have a maximum of 7 facets. 4. Facets are sticky. 5. Facets affect the what options are available in the Action Dropdown (see the Action Dropdown Detail for more information). Default facets (Standard Contact): Recent Updates, Communication History, Media, Groups, and Contact Information

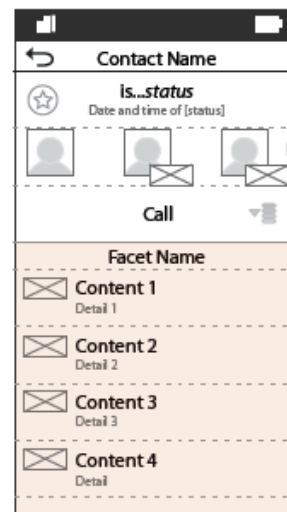
Connected facets (Web Contact): Main [Service] Facet (1 per service), Additional [Service] facets and Widgets

Future facets (Eventual Contact): Calendar (Shared), Location and Presence

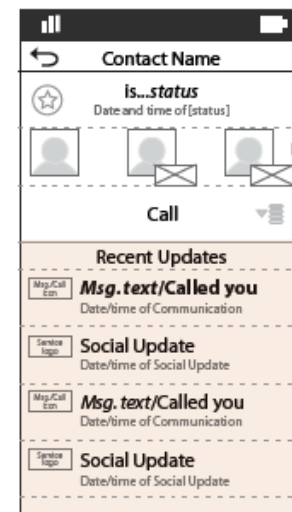


Section 4: Facets

1.1 Person Contact Detail (Generic)



1.1a Person Contact Detail



Facet Basics

The following facets are covered in this design:

- Recent Updates (All web and device activity)
- Communication History
- Media
- Groups
- Calendar
- Location
- Presence
- Widgets
- Franchise specific
- Main [Service] Facet
- Additional [Service] Facet (i.e. Friends in common - Facebook)
- Contact Information

Recent Updates Facet

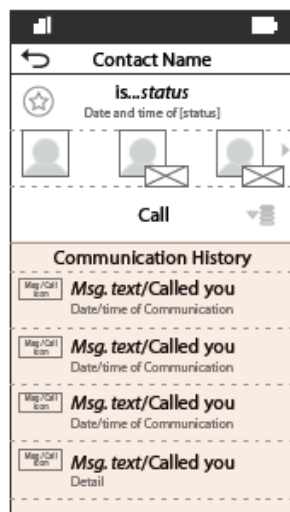
The Recent Updates Facet logs all Incoming Web and device activity. Updates that have not been viewed have bold titles. When the update has been viewed, it is no longer bolded.

The number of updates in this list will be determined by time or capacity.

affordances/interface design: screens

Anatomy of the Contact Detail screen (for a person - 4/6)

1.1b Person Contact Detail



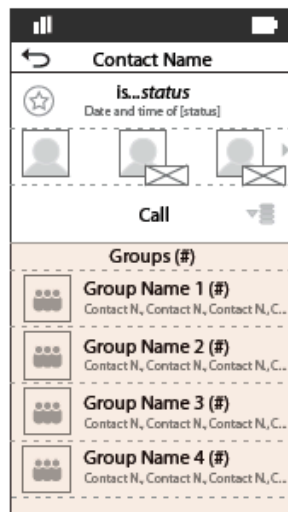
Communication History Facet

Communication History includes all private one-to-one communication, such as Calls, Messages (Email, SMS/MMS, Facebook Messages), IM Conversations (+ small group chats), etc. A Wall post, which is considered one-to-one is not included because the message/post is public. This list only includes incoming communication.

Communication History updates are always chronological, with the most recent at the top.

When an update is selected, a detail of that update is revealed (Content Detail).

1.1d Person Contact Detail

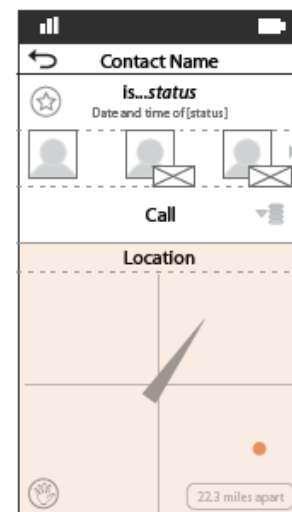


Groups

The groups facet includes groups that were created on the device and system suggested groups. This list does not contain groups from Facebook or other social networks. Group info. from social networks is used as metadata.

Regardless of whether or not a contact is in a group or is suggested by the system to be in a group, every contact will always have a Groups Facet.

1.1j Person Contact Detail



Location

Although this area has yet to be finalized, there are a lot of ideas floating around about how it might be approached.

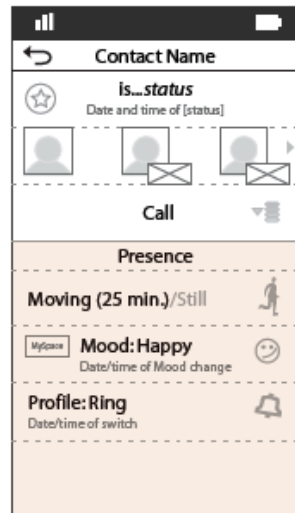
In this concept the phone acts like a compass so that the user might face the other contact (directionally) and send lightweight comm. such as a wave. The users may be 22, one hundred or thousands of miles apart, but they may feel closer if they know that they are facing one another.

If user doesn't have permission to see contact's location, here they can request location permissions (2.2.3).

affordances/interface design: screens

Anatomy of the Contact Detail screen (for a person - 5/6)

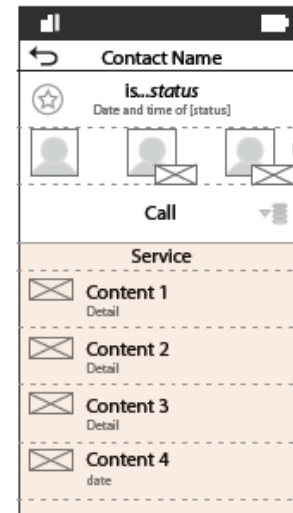
1.1i Person Contact Detail



Presence

Presence Information is perhaps less useful buried with a Facet. What this design hopes to illustrate, however, is that each type of Presence has been considered. Whether or not all presence information should live in the "status" area is still up for debate.

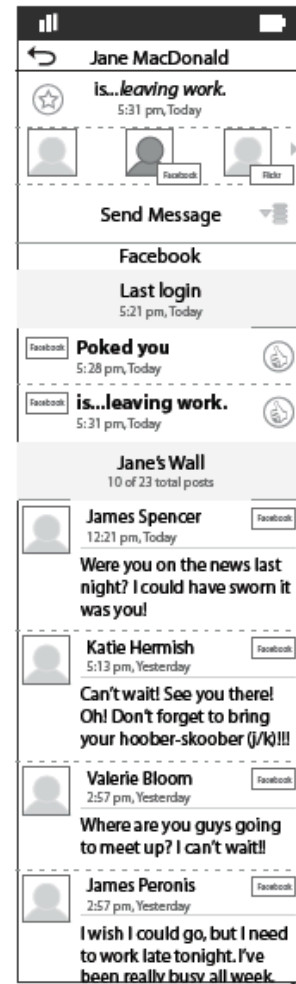
1.1f Person Contact Detail



Main [Service] Facet

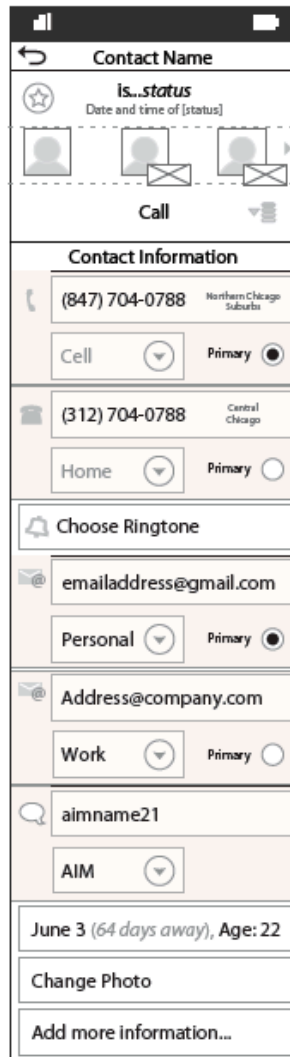
An example of a Service Specific Facet is the Facebook Facet. Once the user has linked the a native phone Contact to the Contact's Facebook identity, a Facebook Facet is automatically added to their Contact Detail.

1.1f Person Contact Detail



affordances/interface design: screens

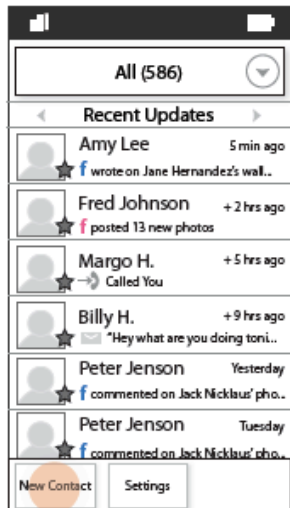
Anatomy of the Contact Detail screen (for a person - 6/6)



affordances/interface design: screens + flows

Create a contact from scratch, person (1/2)

0.0a Contacts Main | All, Recent Updates



All List

From the All List, users access the New Contact and Settings buttons.

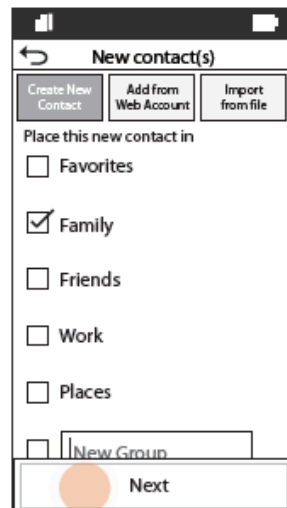
3.0 New contact(s)



New Contact

Upon selecting New Contact, the user has 3 options (top): Create new contact (by default), Add from Web Account (see 3.2a) and Import from File, which would allow the user to import a csv file via a file manager. When in "Create New Contact" mode (above), the user is first prompted to categorize the contact by placing it in a group. This is not a forced action. The user can select 'Next' without choosing a group.

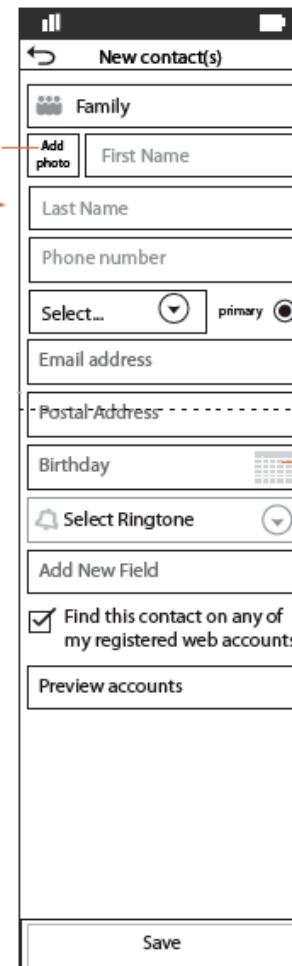
3.0 New contact(s)



New Contact Form (right)

The New Contact Form presents a basic set of fields and the user can add fields as well. By default, a check box at the bottom is checked, indicating that the device will search for this contact on registered web accounts (see 2.1).

3.1a.1 New contact(s) | Create new contact form



3.1a.1 New contact(s) | Create new contact form



affordances/interface design: screens + flows

Create a contact from scratch, person (2/2)

3.1a.i Create new contact form

New contact(s)

Family

Add photo

Aaron (required)

Jennings

833-564-1234

447-567-9802

Mobile primary

Home

Email address

Postal Address

Birthday

Innocent Man, Billy Joel

New Field

☒ Find this contact on any of my registered web accounts

Preview accounts

Save

Date picker
popup

Greyed out if
user has not
registered
any web
accounts

3.1a.ii Create new contact, Confirmation and progress

New contact(s)

✓ Aaron Jennings has been saved as a contact

Checking web accounts for contacts named Aaron Jennings or phone numbers 833-564-1234, 447-567-9802

56%

Cancel Hide

Accounts Preview

Preview Accounts

Find this contact on my following accounts:

☒ Facebook
Sam Adams

☒ Gmail
SAdams06

☒ Linked In
Sam Adams

Close Save

3.1a.iii Create new contact, Matching results

New contact(s)

! Contacts matching Aaron Jennings or 833-564-1234, 447-567-9802 (2 results)

Facebook (1 result)

☒ Aaron Jennings
Chicago, IL
matches: Name and number

Gmail (1 result)

☒ Aaron Jennings
ajennings04@hotmail.com
matches: Name

Ignore Merge

3.1a.i Create new contact form
updated with new info

3.1a.iii Create new contact, Matching results

New contact(s)

! No Matches for Aaron Jennings or 833-564-1234, 447-567-9802

Merge with existing contact

Done

0.0 All

Adding Confirmation, Progress (3.1a.ii)

This confirmation and progress screen both lets the user know that the new contact has been saved and also that the device is looking for the new contact on web accounts. The user can cancel out of the latter.

Accounts Preview (middle bottom)

This is a pop-up window that lets the user see exactly which accounts will be searched. If the user knows this contact is only on one account, then he or she can deselect the other accounts in this screen and tap 'Save.'

Matching Results (3.1a.iii)

Here the device returns results that match the new contact's name, phone number, or email (which in this case was not provided). The user then has the option to merge these other identities into one meta-contact.

iterating with users

iterating with users: prototyping framework

<i>Prototype</i>	<i>Function</i>	<i>Characteristics</i>	<i>Communicates with...</i>	<i>Design stage</i>	<i>Examples</i>
Conceptual	<ul style="list-style-type: none"> externalizes idea shows overall plan with interrelationships instrumental for getting early team focus and agreement 	<ul style="list-style-type: none"> often diagrammatic highly abstract holistic presentation of idea goes through many quick iterations 	<ul style="list-style-type: none"> client team members 	early and when substantial structural changes are needed	
Behavioral	<ul style="list-style-type: none"> supports interaction uncovers users' intuitive cognitive operations and expectations 	<ul style="list-style-type: none"> seldom holistic often a critical segment of the design idea often crudely designed but with enough context for use often looks nothing like the object being designed 	<ul style="list-style-type: none"> users (elicits natural action and feedback) client (shows alternatives) designers (answers questions) team members (facilitates decision-making) 	early and intermittent as behavioral questions arise	
Procedural	<ul style="list-style-type: none"> verifies the logic of sequences identifies patterns of use 	<ul style="list-style-type: none"> exhaustive integrated presentation of options and consequences 	<ul style="list-style-type: none"> users (elicits choice and planned consequences) team members (facilitates execution) 	later, but much before production — iterate as often as needed	
Appearance	<ul style="list-style-type: none"> assists in aesthetic development confirms sensory impact 	<ul style="list-style-type: none"> highly detailed highly realistic selected functionality to scale, often 1:1 	<ul style="list-style-type: none"> users (verify quality) team members (explore visual detail and consistency) client (proof of concept) 	late, but before production — iterate as often as needed	
Scenarios	<ul style="list-style-type: none"> establishes context for use connects early vague idea with details of life embeds developed idea into daily life 	<ul style="list-style-type: none"> narrative real-to-life story sufficient detail to be believable 	<ul style="list-style-type: none"> team members (helps to establish context) client (helps to understand concept) public (promotes idea) 	early, to understand how the concept fits in user lives middle, to communicate real life issues to team late, to spin the idea in a public setting	
Games	<ul style="list-style-type: none"> supports speculation on relationships between complex and interactive aspects of a situation 	<ul style="list-style-type: none"> rule driven includes chance, decision and consequence simulates key aspects of a situation 	<ul style="list-style-type: none"> team members key stakeholders 	early, to uncover major conflicts a	

structure...flow...process: a few web resources

First Principles of Interaction Design

<http://www.asktog.com/basics/firstPrinciples.html>

Views and Forms: Principles of Task Flow for Web Applications Part 1

[http://www.boxesandarrows.com/view/
views_and_forms_principles_of_task_flow_for_web_applications_part_1](http://www.boxesandarrows.com/view/views_and_forms_principles_of_task_flow_for_web_applications_part_1)

Wizards and Guides: Principles of Task Flow for Web Applications Part 2

[http://www.boxesandarrows.com/view/
wizards_and_guides_principles_of_task_flow_for_web_applications_part_2](http://www.boxesandarrows.com/view/wizards_and_guides_principles_of_task_flow_for_web_applications_part_2)

A visual vocabulary for describing information architecture and interaction design

<http://www.jjg.net/ia/visvocab/>

A few good books

About Face 3: The Essentials of Interaction Design, Alan Cooper

Designing for Interaction: Creating Smart Appliances and Clever Devices, Dan Saffer

Elements of User Experience, Jesse James Garret

Information Architecture: Blueprints for the Web, Christina Wodtke

Designing Interactions, Bill Moggridge

Sketching User Experiences, Bill Buxton

Envisioning Information, Edward R. Tufte – all Tufte books are fantastic