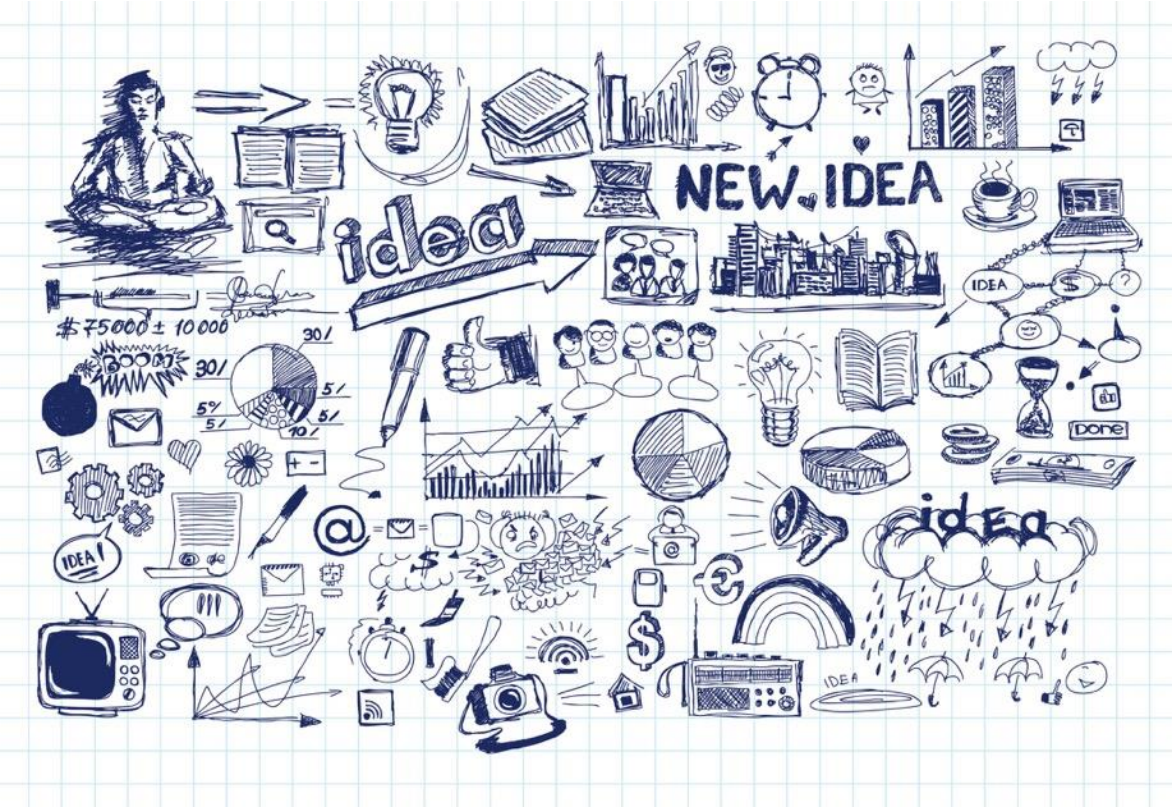
DESIGN THINKING

Empathy (Understanding users)

Ideation (Well-founded creativity)

Iteration (Design-Test-Repeat)

Rationality (Substantiated)



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DESIGN THINKING

Empathy (Understanding users)

Go out in the field, inside out approach

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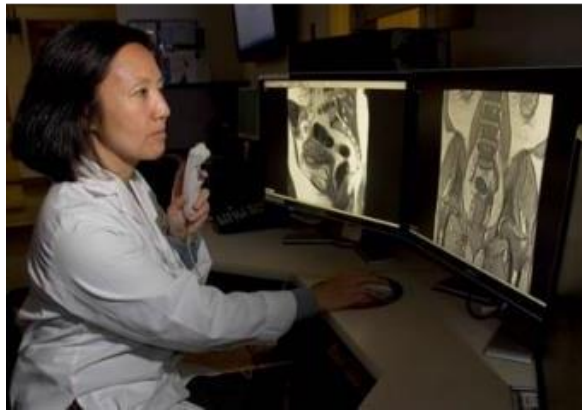
KNOW YOUR USER – YOU'RE NOT THE USER!

- For some products you are a user, but being part of IT, you know more about that product than a typical user
  - Exact way product and features work
  - Pitfalls and workarounds
  - History and future plans for product

- For other products you are not a user, nor do you know the domain
  - What do you know about Radiology Information Systems?
  - What do you know about Corporate Tax Accounting Systems?
  - What do you know about Atomic Force Microscopy?



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What ? … does the offering need to enable users to do? What are requirements? What do competing offerings provide?

Who ? … is using the offering? Is it one user group or several? How are user groups different? Young vs. old. Experts vs. novices.

Where ? … is the offering being used? Office vs. on the road. Light vs. dark environment. Alone vs. team.

When ? … is the offering being used? Once a year vs. once a quarter vs. one a week vs. all the time? Less and less? More and more?

Why ? … should the offering being used? What's the value statement?

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The 5 Whys

ARKANSAS MICHIGAN FLORIDA TEXAS IOWA WISCONSIN CALIFORNIA MINNESOTA OREGON KANSAS WEST VIRGINIA NEVADA NEBRASKA

The Power of Asking “WHY?”

The stone exterior of the Lincoln memorial was deteriorating and showing significant signs of wear. The National Parks Service called the maintenance crew and asked:

“Why?”

“Because of the high-power sprayers we use to wash the memorial every two weeks.”

“Why are we doing high-powered washings every two weeks?”

“Because of the bird droppings.”

“Why are there so many birds?”

“The birds come to feed on the spiders.”

“Why are there so many spiders?”

“Have you ever been to the memorial at night? There are billions of insects. The spiders come for the buffet.”

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The Power of Asking “WHY?”

“Why are there so many insects?”

“The insects are attracted by the high-powered spotlights we shine on the memorial.”

“Why do we shine the lights?”

“So the tourists will come to see the memorial.”

“Why do we want the tourists to come?”

“Because they bring their money and spend it in our city.”

“Is there anything we can do about the lights so that there won’t be so many bugs?”

“Sure, turn the lights on later in the evenings and off earlier in the mornings.”

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The Power of Asking “WHY?”

By waiting until 30 minutes after sunset to turn the lights on and turning them off 30 minutes before sunrise, they were able to both save significant money on electricity and also reduce the amount of bugs by 90%.

Less bugs → less spiders

Less spiders → less birds

Less birds → less droppings

Less droppings → less washings

Less washings → less deterioration of the stone

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Mental Models

"Hey Dad, how do you like the iPad that we gave you for your birthday?"

"Yup, it's good."

"And you know what to do with all those apps?"

"Apps? What apps?"

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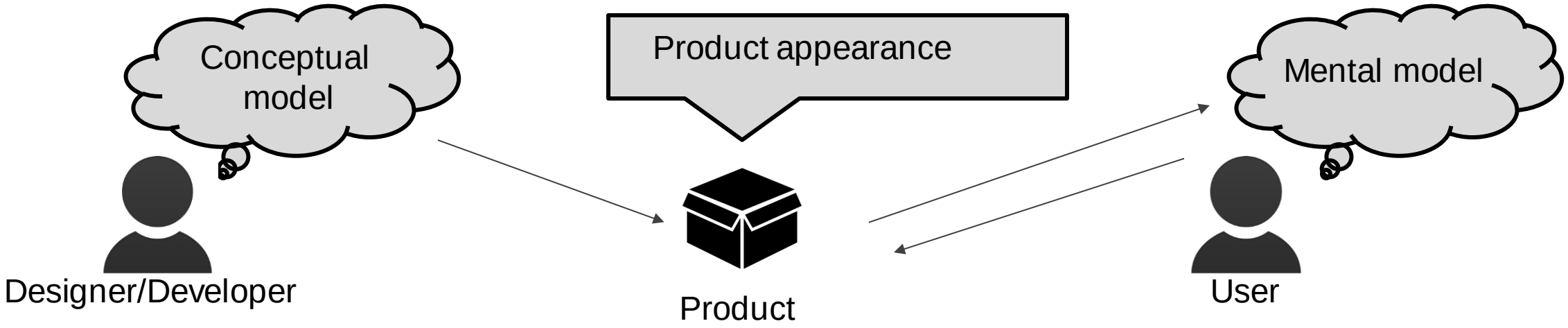
Mental Models

- We are surrounded by thousands of things
- Our brain looks for meaning in every single thing
- When encountering a new thing, we create a mental model for utilizing it
- Our understanding may be right or wrong
- It is a design task to create an appearance that portrays the right conceptual model and allows the user to create a correct and accurate mental model



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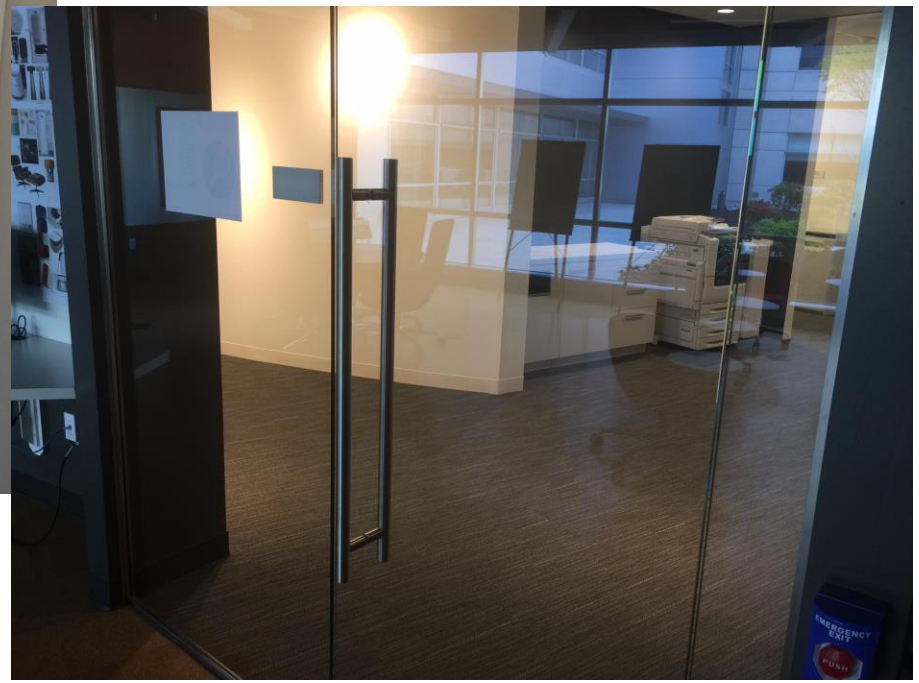
Mental Models

Push or Pull?



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Mental Models

Turn vs Push and Pull?

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MENTAL MODELS

Antilock brakes

“I’ve better brakes now, so I have more time to engage the pedal.”

No antilock brakes

Antilock brakes

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Mental Models

“It’s 72°F outside now, so I can switch the heating off. Otherwise it’ll keep heating the house up.”

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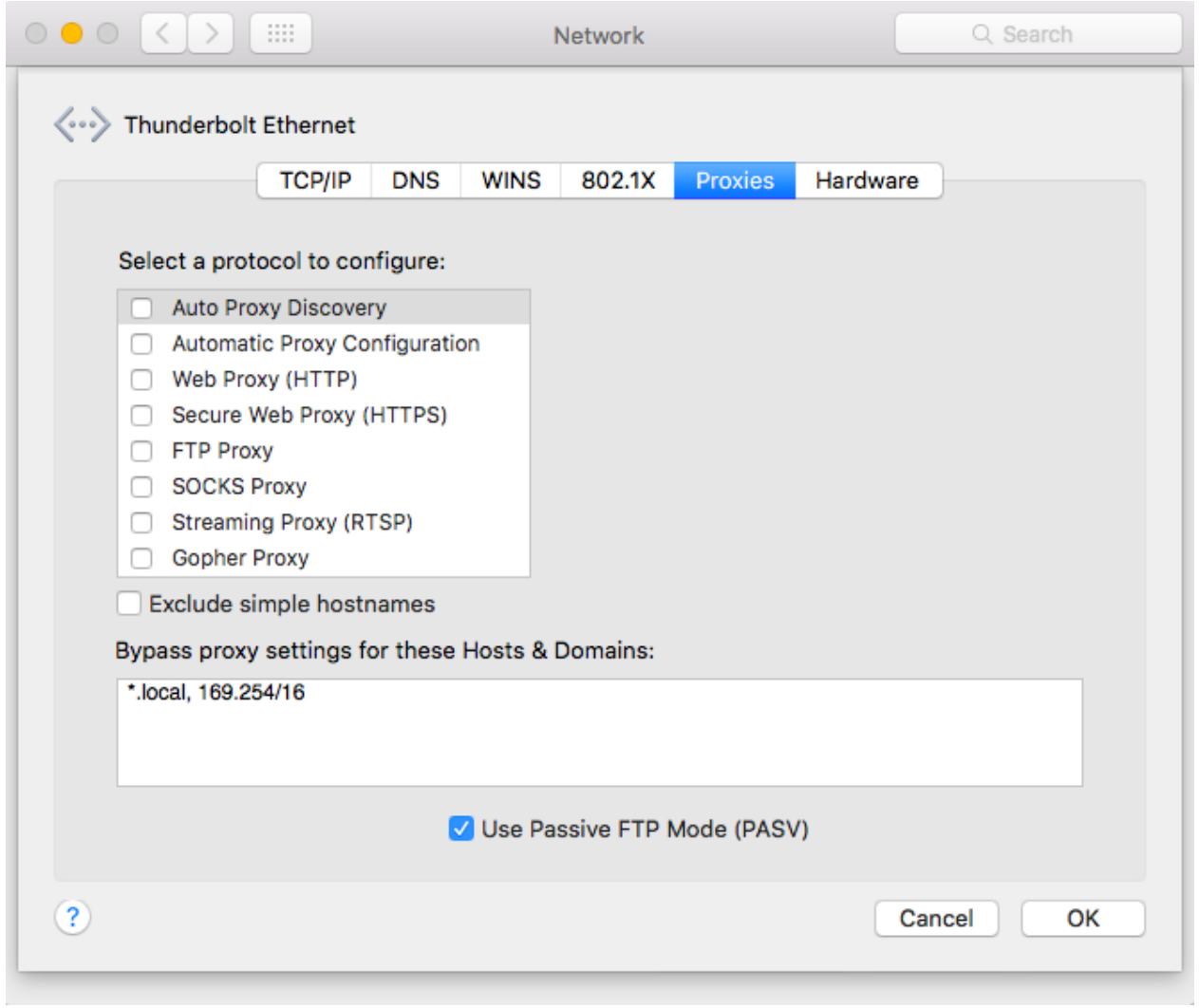
Mental Models

"Try switching on/off the Auto Proxy Discovery!" – "Why?" – "I don't know, works for me."



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Safari File Edit View History Bookmarks Window Help 100% Thu 3:48 PM

getit.honeywell.com

Mail - Komischke, Tobias - Outlook | .: GetIT Portal :.

Honeywell

GetIT PORTAL
Welcome Komischke,Tobias

Region US | Language English

GetIT PORTAL

- Home
- Self Help
- My GetIT
- On/Off-boarding
- Search
- Escalation Contacts
- Expected Delivery Times
- Help
- Feedback
- Log Out

MOBILITY SERVICES

Request this Service

Expected Delivery from the time the request has been approved is 1 - 2 business days. Set up and activation of the device can take an additional 1-2 business days.

US Services

- **Cancel Service:**click here to cancel a line that is no longer required in order to cease billing
- **Eligibility Date:**click here to check your eligibility date
- **Change Rate Plan:**For plan changes or enabling hotspot/tethering, please raise a ticket with the Service Desk.Click Here for more details
- **Request a NEW or RESET an existing MDM account:** required for smartphones or smart tablets to access Honeywell resources. Click here to request the MDM account.
- **Roaming Request:**click here to avoid higher charges when traveling internationally
- **Transfer out of Honeywell liability:**click here to re-direct billing charges accordingly (approvals required)
- **Transfer Service:**click here to transfer a wireless line from one user to another so billing gets re-directed

SUGGEST IMPROVEMENTS

QUICK INFO PANEL

Most Searched

iphone
lync headset
LYNC
OneDrive
headset
Airwatch
visio
software
docusign
guest

Further Information

Escalation Contacts DB

HITS main website

How to check the status of your request

How to find your service

Latest Forms

- How to print private documents with HP printers
- IT Microsoft Voucher Request
- Deactivate User for DocuSign
- AT&T and Verizon - Instructions to interact with their Corporate Portal
- It is very important to be compliant with Honeywell Travel Policy https://in.honeywell.com/BusinessFunction/IT/us/pages/Lync-Travel-Policy.aspx

Latest Manuals

Mental Models

TESLA Auto-Pilot

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Mental Models

“We’re losing altitude, so we better pull up.”

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GOOD CONCEPTUAL MODELS…

- Allow us to predict the outcome of our actions and map to users' mental models
  - Support and build upon correct mental models
  - Correct wrong mental models
- Comply with the rules for good design
- Use affordances and constraints
- Need to be crafted. It's design!

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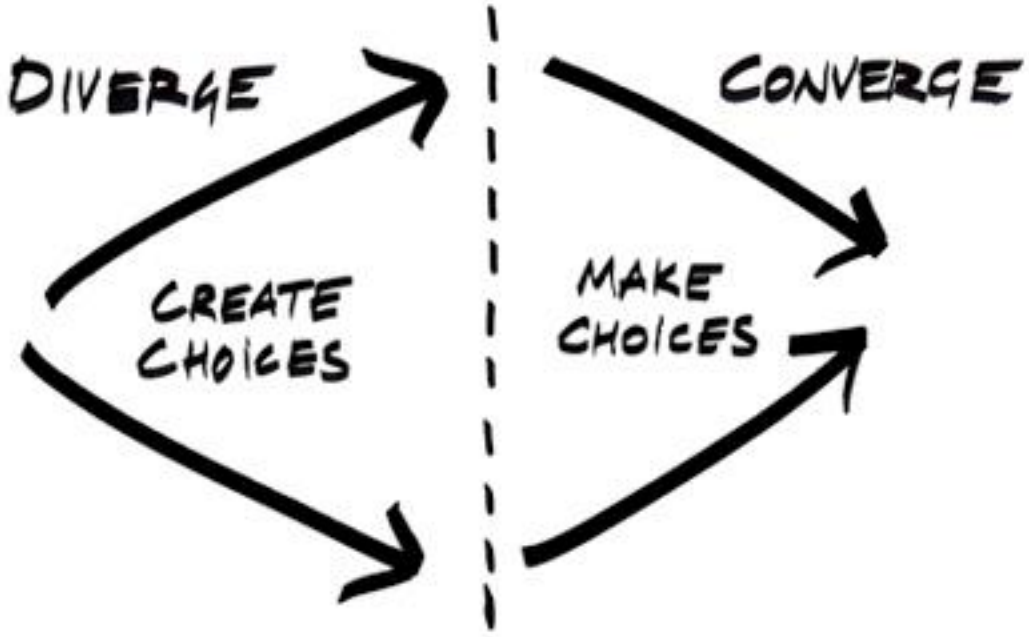
DESIGN THINKING

Ideation (Well-founded creativity)



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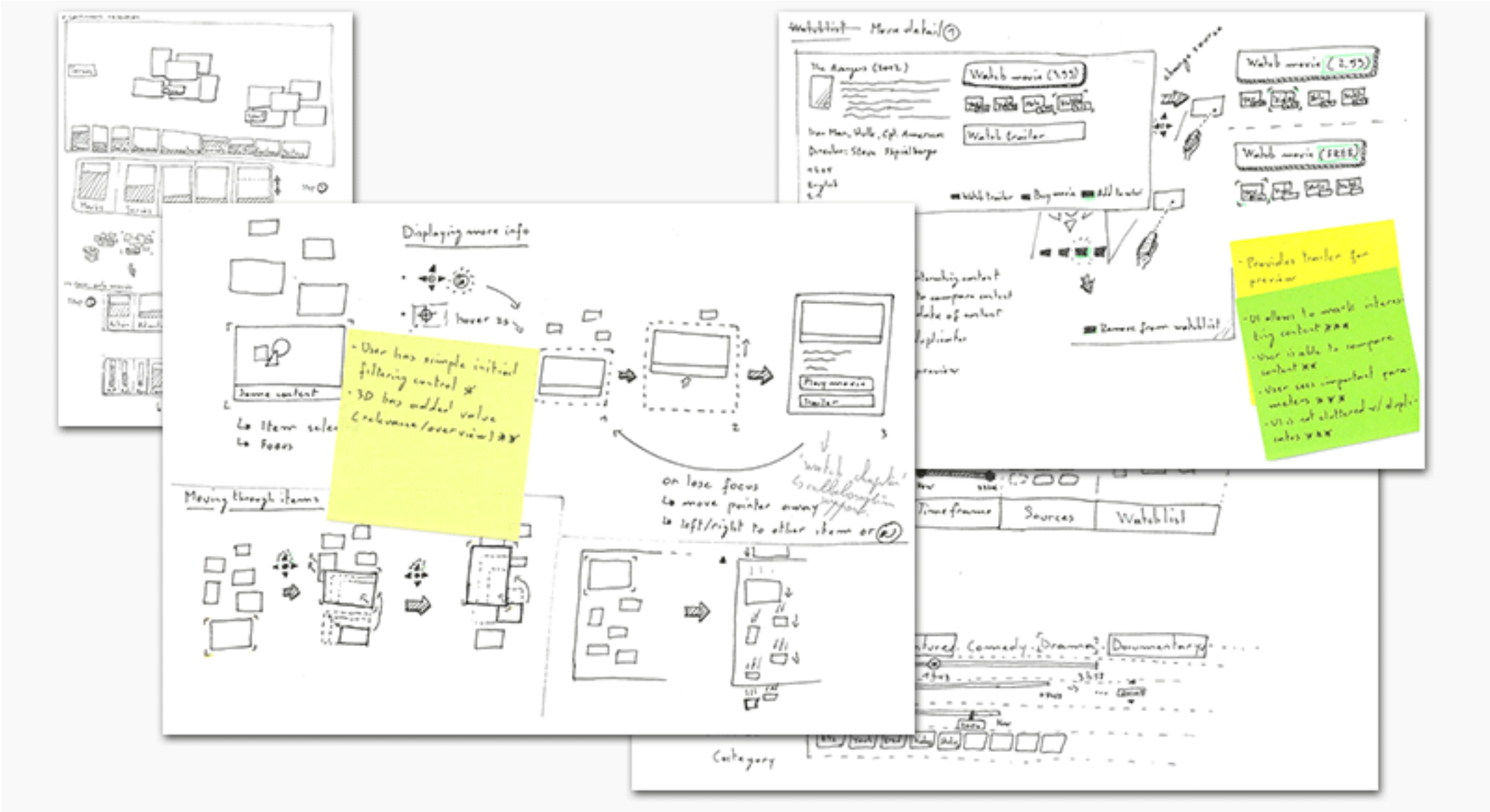
Ideation



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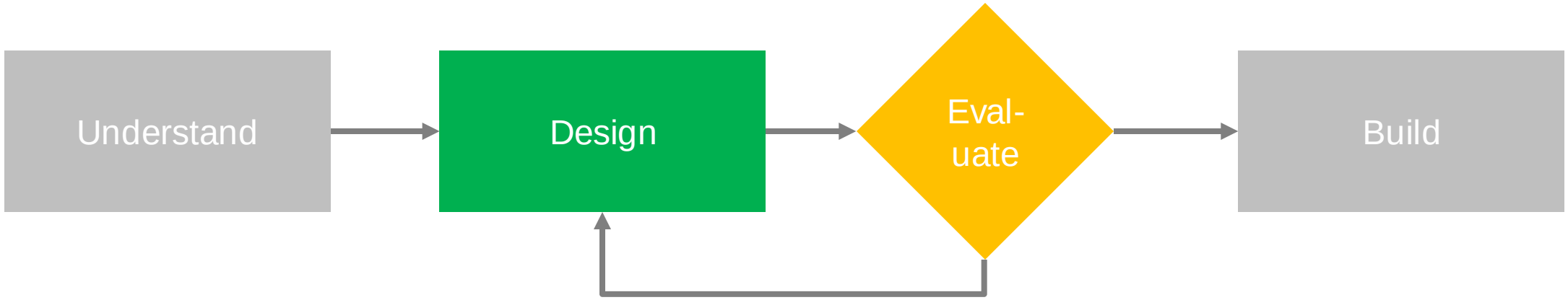
DESIGN THINKING

Iteration (Design-Test-Repeat)



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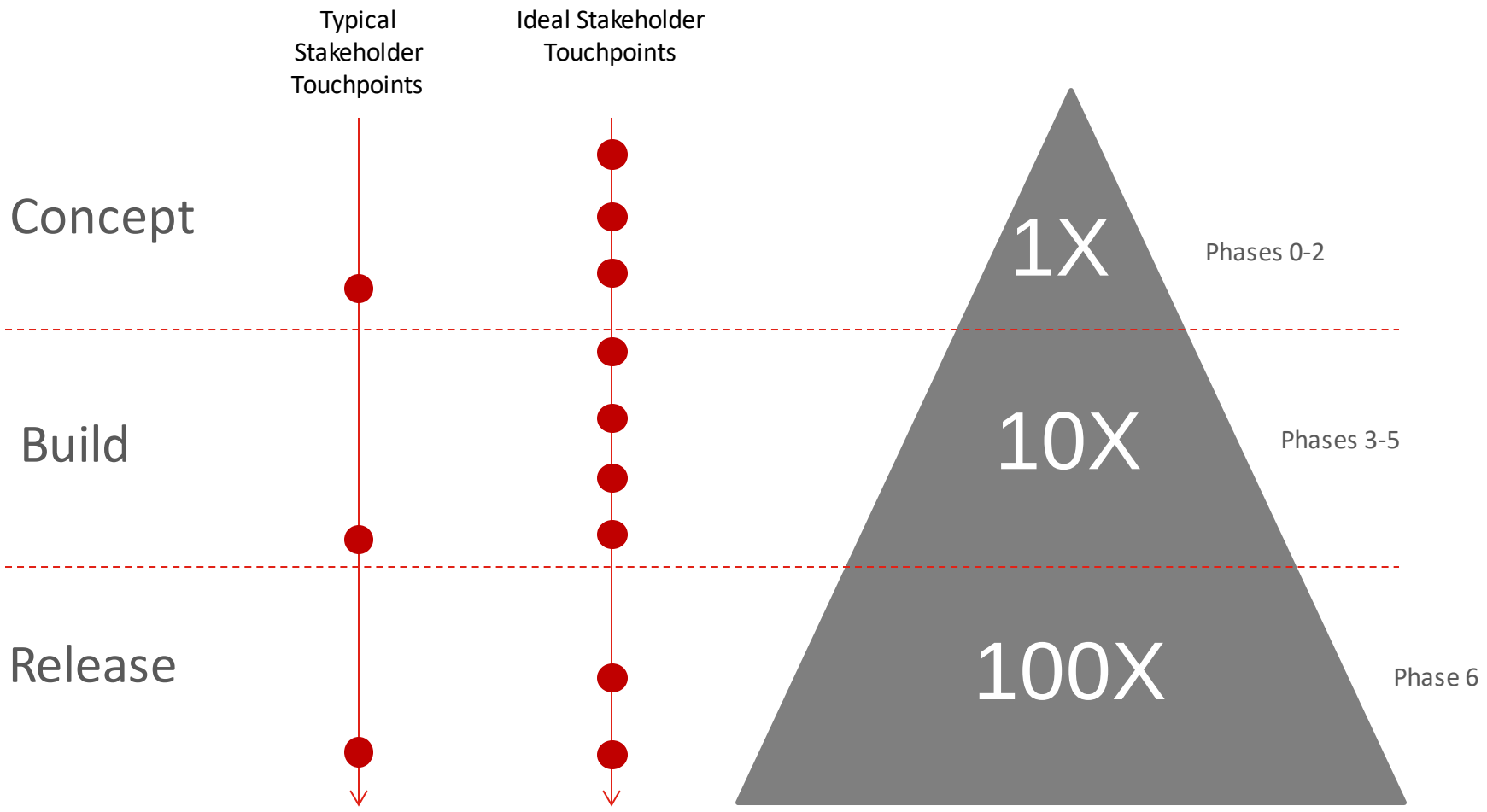
Why iterate?



Reduced program risk through early stakeholder engagement

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DESIGN THINKING

Rationality (Substantiated)

Evidence through usability testing
Guidelines
Best practices

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Rationality

"I believe that…"

"I think that…"

"My gut tells me that…"

"My opinion is that…"

vs.

"We have evidence that…"

"Our user research says that…"

"Usability Testing results show that…"

"Published work says that…"

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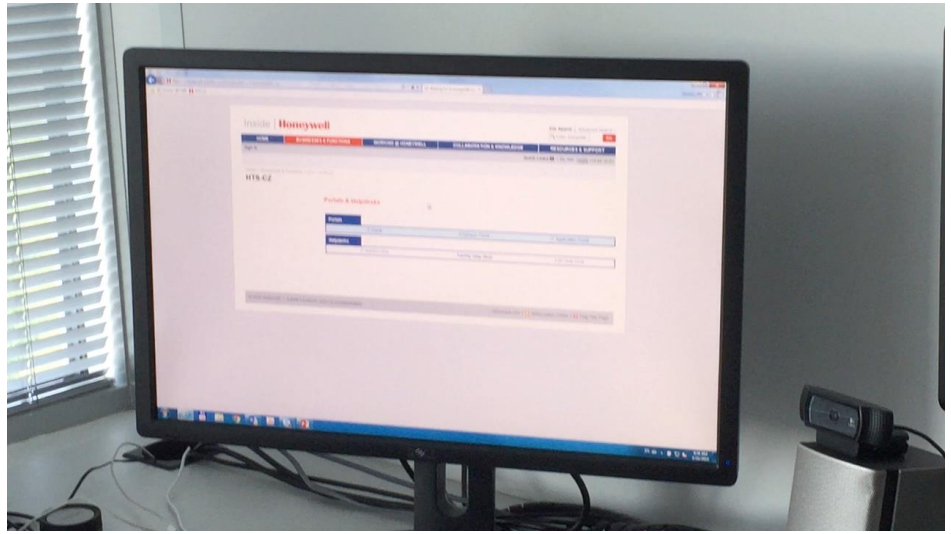
Rationality

Base decisions on evidence – either empirical or from best practices

Usability Testing



OVOC

Honeywell®
Design Language System

ISO
9241

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Hands-on

What’s the issue?

Declined Shop: US Computer Accessories - US Computer Accessories 810520 Tobias K...

GW

GetIt WebStore <getitcontrolcenter@honeywell.com>
Monday, April 25, 2016 at 11:37 AM
To: Komischke, Tobias

Your request for US Computer Accessories has been declined for the following reason: this was an old approval req, just clearing it out.

In case of problems, please contact your AOA Team at: ITOrderFulfillment@Honeywell.com.

- What exactly did I request?
- When did I make the request?
- Who declined it?
- Where can I see the trail of events?
- What’s the reference number to follow-up with the AOA (what does AOA mean?) - is it 810520?

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What’s the issue?

- Who does the email address?
- I’m being asked to take action, but what and how?
- Who can I contact for help?
- Is the requestor language important to me?
- Redundancies (Phone number)

FYI - Mobility Cancellation Request - Ticket # 944167

UM

US Mobility Services <subscriber.services@honeywell.com>
Tuesday, May 3, 2016 at 8:37 AM
To: Komischke, Tobias

Please take action by using the links below (DO NOT reply to this e-mail)

Dear **Klaver,Mildred M**:

Your request to **CANCEL SERVICE** for the following has been sent to the Subscriber Services Team for processing.

Employee Name: [redacted]

Employee EID: [redacted]

Carrier/Vendor: AT&T Wireless

Requestor Info

Requestor Eid: E447181
Requestor Fullname: Klaver,Mildred M
Requestor Email: Mildred.Klaver@Honeywell.com
Requestor SBG: CORP
Requestor SBU: INT
Requestor Language: EN

Form Data

Cellular Number : +1 (862) 812-5273
Device Type : Smartphone (non-BlackBerry)
Carrier : AT&T Wireless
Business Justification : [redacted] no longer with Honeywell. I'm not really sure of the carrier.

Cellular/Asset Number: +1 (862) 812-5273

Service Type: Smartphone (non-BlackBerry)

Comments:

You can view the latest details of your request at anytime by using the following link: click here.

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What's the issue?

What's the consequence for the customer? What could be done about this?

Subject: Service Desk Feedback

All,
I'd like to share my experience on the Service Desk.

I called the EMEA Service Desk yesterday night for a very simple request: Reset the password of a consultant. The day before, I had submitted an ITIM request to get his password reset but as I've never got the new password by mail, I called the support.
I had to stay on line 40 min, it's really unbelieve… First, the quality of the line was really poor, we could barely understand each other. So I asked for Skype, the person did not have any Skype installed… I just wanted to send him my EID and the ticket number.
He finally got my EID correctly but he told me that my EID was not a valid one, next he did not find my ticket number. After he told me that he had an issue with his system and wanted to reboot it… 10 min later, he had finally all information in hand but could not reset the password.
After a while, I told the guy that I will hang up, I asked to send me information by mail. 30 min after I finally got the new password by mail.

So more than one hour lead-time for a simple request that should have not required to call the service desk.

Hope you can share this.

Regards,

ACTIVITY: Write down the issues you see in this email; the consequences; and possible ways to mitigate.

Issue	Consequence	Mitigation

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What's the issue? (Possible Answers)

Issue	Consequence	Mitigation
No confirmation was sent for receiving the request	Customer unsure whether he's being helped	Send timely confirmation email
Long wait time on phone	Customer unproductive and unhappy	Commit to call back within communicated timeframe
Bad call quality	Customer has trouble communicating	Provide multi-channel (e.g. Skype/Lync)
Support doesn't have Skype/Lync	Customer has trouble communicating	Provide consistent set of tools within company
Support cannot find ticket number	Unproductive wait time for customer; loss of customer's confidence in support system	Review process & technology
Support needs to reboot	Unproductive wait time for customer; loss of customer's confidence in technical system	Review process & technology
Support could not reset password	Even after investing significant time and effort, customer could not get the objective done	Review process & technology

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Quiz

What does EMPATHY mean in UX Design?

A. Feeling pity for someone
B. Feeling sorry for someone
C. Trying to understand the project manager
★ D. Methodically understanding users and their needs
E. A. and B.
F. C. and D.
G. All of the above
H. None of the above

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Quiz

What's the point of DESIGN ITERATIONS?

A. Trying out something new in every round
B. Trying to improve design in every round
C. Correcting issues in every round
D. Get feedback after every round
E. B. and C.
★ F. All of the above
G. None of the above

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Quiz

What were those “W” questions that allow you to understand the context of use?

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Feedback

- Have your expectations been satisfied?
- What did you like?
- What can we do better?

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The End

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