

VOICE DESIGN

AT ALLSTATE

Amy Roark - Multi Modal Designer

IN THIS SKETCH:
CONVERSATION
DESIGN ASPECTS
FOR BOTH VUIs
& CHATBOTS.

DESIGNING A

CONVERSATIONAL UI

UX Knowledge Base Sketch #86

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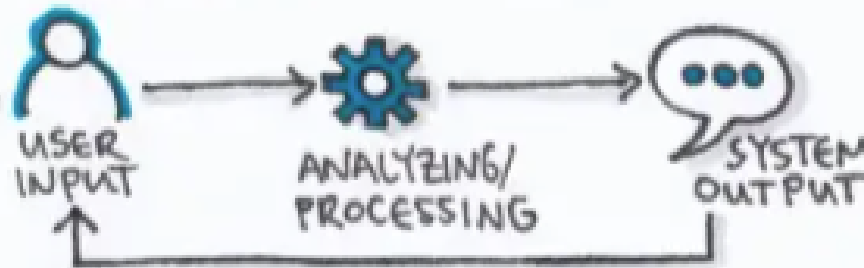
PART 3:
CHATBOT-DESIGN
PART 4
VUI-DESIGN

A NEW ROLE: CONVERSATION
DESIGNER



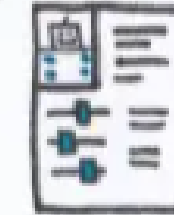
USERS TEND TO
HUMANIZE TECHNOLOGY + THEY RESPOND
TO IT AS THEY'D RESPOND TO HUMANS

ANATOMY OF A CONVERSATION:



! SMALL THINGS CAN MAKE/BREAK THE EXPERIENCE

YOU CAN DEFINE A SYSTEM/BOT PERSONA



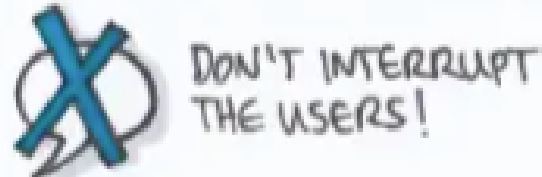
SET OF ATTRIBUTES
GOAL: MAINTAINING CONSISTENCY
+ IN MANY CASES: ADDING PERSONALITY

! THINK ABOUT WHETHER IT'S APPROPRIATE
• IN YOUR CASE OR NOT, SOMETIMES A CHARACTER/
PERSONALITY IS JUST A DISTRACTION.

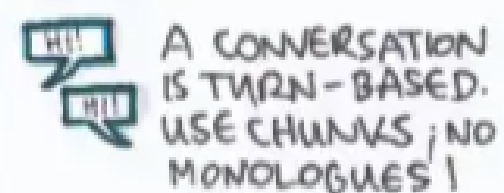


TAKE INTO ACCOUNT THE PRINCIPLES/
CHARACTERISTICS OF NATURAL,
HUMAN-TO-HUMAN CONVERSATIONS:

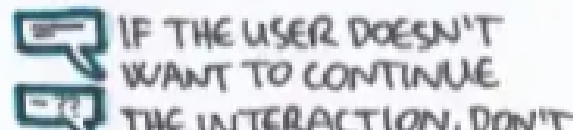
→ STARTING POINT FOR DESIGNING CONVERSATIONAL UI



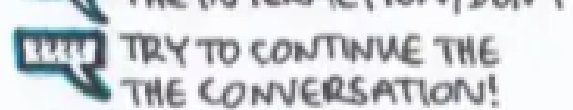
DON'T INTERRUPT
THE USERS!



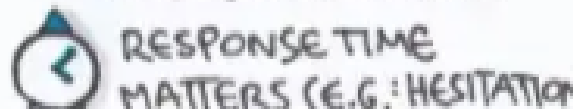
A CONVERSATION
IS TURN-BASED.
USE CHUNKS; NO
MONOLOGUES!



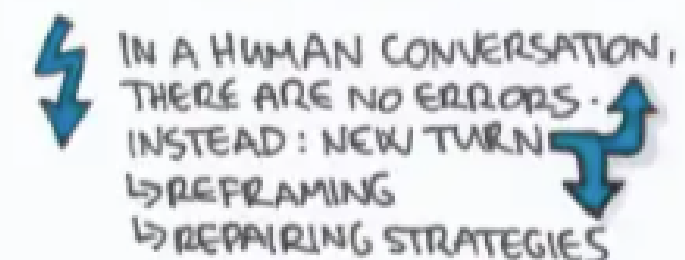
IF THE USER DOESN'T
WANT TO CONTINUE
THE INTERACTION, DON'T
TRY TO CONTINUE THE
CONVERSATION!



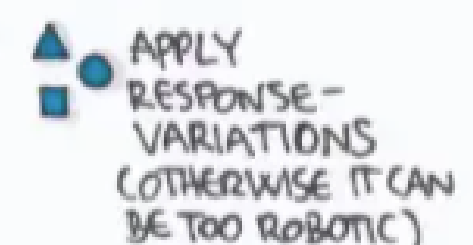
TRY TO CONTINUE THE
CONVERSATION!



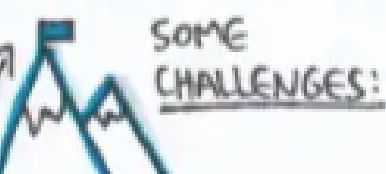
RESPONSE TIME
MATTERS (E.G.: HESITATION)



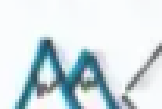
IN A HUMAN CONVERSATION,
THERE ARE NO ERRORS.
INSTEAD: NEW TURN
→ REFRAMING
→ REPAIRING STRATEGIES



APPLY
RESPONSE-
VARIATIONS
(OTHERWISE IT CAN
BE TOO ROBOTIC)



SOME
CHALLENGES:



RULE-BASED BOT:
ADDING ALL CASES



AI BOT: TECHNOLOGY IS FAR
FROM MATURE



CONTEXTUAL
AWARENESS
& INTENT



EMOTIONALLY INTELLIGENT
BOTS

★ SOME MORE ASPECTS OF
DESIGNING A CONVERSATIONAL UI:

★ LANGUAGE: IDIOMS, SLANG, SYNONYMS,
REGIONAL VARIATIONS

★ WORDS: CLARITY! USE PLAIN LANGUAGE
INSTEAD OF JARGON. GENDER?

★ SIGNIFIERS: BOTS SHOULD PROACTIVELY
SUGGEST WHAT USERS CAN DO.

★ FEEDBACK: ALWAYS PROVIDE FEEDBACK
TO THE USER. → FEELING OF BEING
IN CONTROL

★ DIFFERENTIATE: NEW VS. RETURNING/
EXPERIENCED USERS → MODELING
RELATIONSHIPS OVER TIME - WHAT IS
SAVED? (~ REMEMBERING)

★ SHORTCUTS: IN MANY CASES, THE USER
KNOWS IN ADVANCE WHERE SHE WANTS
TO END UP IN THE CONVERSATION.

★ SAVED STATUS: ALLOW USERS TO CONTINUE
THE TASK AFTER A PERIOD OF NOT USING
THE BOT.

★ SHOW PROGRESS: STEPS ALREADY TAKEN

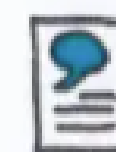


BUT BEFORE THAT...



① IS USING CONVERSATIONAL UI A GOOD SOLUTION? IF YES!

② START WITH YOUR USERS!
GOALS, MOTIVATIONS, NEEDS, CONTEXT (E.G. DEVICE TYPE)
CREATE PERSONAS, USE EMPATHY MAPS, JOURNEY MAPS ETC.



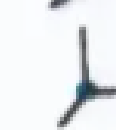
③ CREATE A STYLE GUIDE (E.G. TONE OF VOICE, OVERALL
IMPRESSION YOU ARE GOING FOR.)



④ ASSEMBLE INITIAL, HIGH-LEVEL CONVERSATION FLOWS
ONE STEP IS ONE DIALOGUE/USER INTENT
WORDING: LATER; IT SHOULD BE LIKE A MAP



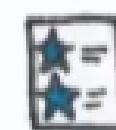
⑤ WRITE SAMPLE DIALOGS: START WITH THE SPOKEN FORM IN MIND
(EVEN IF YOU DESIGN A CHATBOT)



⑥ FIRST WORK ON THE KEY USE CASES, THEN ADD DETOURS,
FINALLY INCLUDE EDGE CASES. (3 LEVELS)



⑦ TEST & ITERATE! E.G. WIZARD OF OZ TEST:
SOMEONE "BEHIND THE CURTAIN" PRETENDS TO BE THE SYSTEM
(AS IF HE WAS THE BOT); THE USER THINKS THAT SHE INTERACTS
WITH THE CHATBOT/VUI.



⑧ YOU CAN ALSO DEFINE A SET OF PRINCIPLES
SOME EXAMPLES: • TRANSPARENCY, NOT PRETENDING
TO BE A HUMAN
• ESCALATION POLICY: HUMAN FALLBACK



YOU SHOULD ADD
COUNTEREXAMPLES

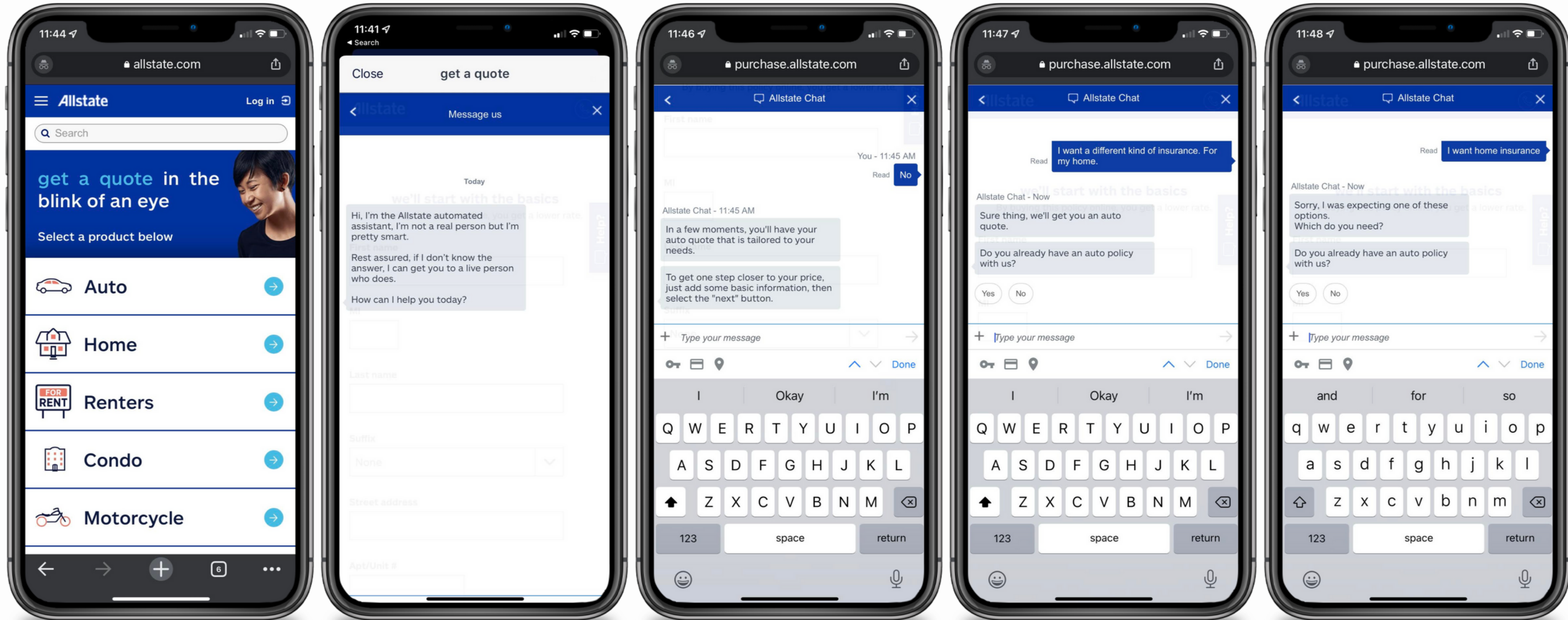
MY ROLE & GOALS

While at Allstate, I was the lead UX product partner with the Sales Chat Bot team and the IVR design team, collaborating directly with product and business owners, international development leads, data teams and research partners - as well as coaching junior conversational designers - to deliver improved conversational experiences that are genuinely responsive to both customer and business needs and expectations.

When I came onboard, I had three main objectives:

1. Improve the Sales bot accuracy and customer satisfaction scores significantly;
2. Identify opportunities to improve IVR customer transaction success rates and satisfaction scores
3. Establish scalable best practices across all conversational platforms

STARTING POINT



Blink is a strong word.

Wordy, and over promises.

Missed the negative response.

Routinely misread utterances.

What?

STARTING STRATEGY

When designing overall strategies for chat or VUI, my goal is always to design customer experiences that are natural and intuitive - and that are scalable across interconnected platforms, to help users wherever they are and wherever they land.

The connecting factor? All of these projects required building strong relationships.

That meant rebuilding trust among product partners.

After initial review, I determined the main opportunities for the Sales bot were:

- Current intent utterance & NLP tuning
- Design and implement scalable conversational content strategies (social, dissatisfaction, redirect, etc)
- Better/any alignment with supporting platform UI
- Utilize internal NLP capabilities to support better data analysis
- Identify API/data sharing blockers preventing better customer experience

STAYING ON THE SAME PAGE

It's critical for everyone on working teams to be working from a shared set of expectations. Often, documentation and other artifacts in Conversation design can be hard to find. This puts stakeholders with CxD/VUI familiarity at a disadvantage. And that can cause miscommunication.

So I start every project by establishing alignment via working design principles. Examples include:

**Service
Minded
Service
Design**

**Show,
Don't Tell**

**Think
outside the
Bot**

STRATEGY | IDEATION

Dissatisfaction MVP Strategy Sales Bot			
Current State			
1. Data		2. Structure Limitations	
<ul style="list-style-type: none">I reviewed conversations from the past 2 months rated 'Negative' and 'Mixed'. From this quick analysis, it seems most fall under the following Utterance categories, ranked in order:<ul style="list-style-type: none">1 – 'Not this', 'No', 'Not what I wanted'2 – Never received my quote3 – Trouble with my payment4 – Spouse related – 'Don't add my wife' and 'my spouse is dead' evenly split		<ul style="list-style-type: none">Due to our current containment and 2nd utterance architecture, we're limited in how we can execute a deflection-forward Dissatisfaction strategyWanted to tackle the 'No' 'Not what I wanted' 'Not what I asked for' for MVP – however not feasible due to level of data analysis and potential content restructure requiredInstead focusing on top 2 customer-identified troublesome intents – Spouse and Never Received My QuoteThe strategy implementation is still quite high-touch – we must prompt messaging or update the 'listening' tag to the EOF flow messages for every intent and page where add this featureContainment may also need to be re-mapped/reconfigured	
3. Other Considerations		4. KPI & User Success Analysis	
<ul style="list-style-type: none">There are opportunities to build in hard 'learning moments' into this otherwise non-learning bot. Asking trackable success/fail questions, learning from conversations where our content is missing the mark, etc. Most importantly, we should test how our Dialogue strategy intents interact with each other.Another reason to avoid Dissatisfaction deflection in MVP is the potential that the customer already went through an Incomprehension flow.We'll need to review Follow-up strategies for all flowsCan we build time in for a user testing strategy?		<ul style="list-style-type: none">Considering the significant technical differences and content structure analysis and tuning required, how can we identify what success looks like for MVP Dialogue Strategies?What are the current KPI's?Do we need to review?	

Dissatisfaction Strategy | MVP Ideation

Voice design is a team sport, and clear agreements are key. Sharing iterative ideation, collaborating on MVP KPIs early and often with all invested stakeholders builds trust and keeps momentum flowing.

Social Responses for Chat | Data Review Strategy

Main Goal Review YTD Utterances to identify patterns and understand trends that will support a successful MVP Social Response strategy for the Sales Chatbot and find opportunities that help guide iterative decisions post MVP.

Supporting Goals

- Identify and group Business and Non-Business utterances
- Identify patterns/trends within these categories and group into sub-categories (i.e., Business; Missed Utterance; Non-Business Chatter; etc.)

Supporting Goals

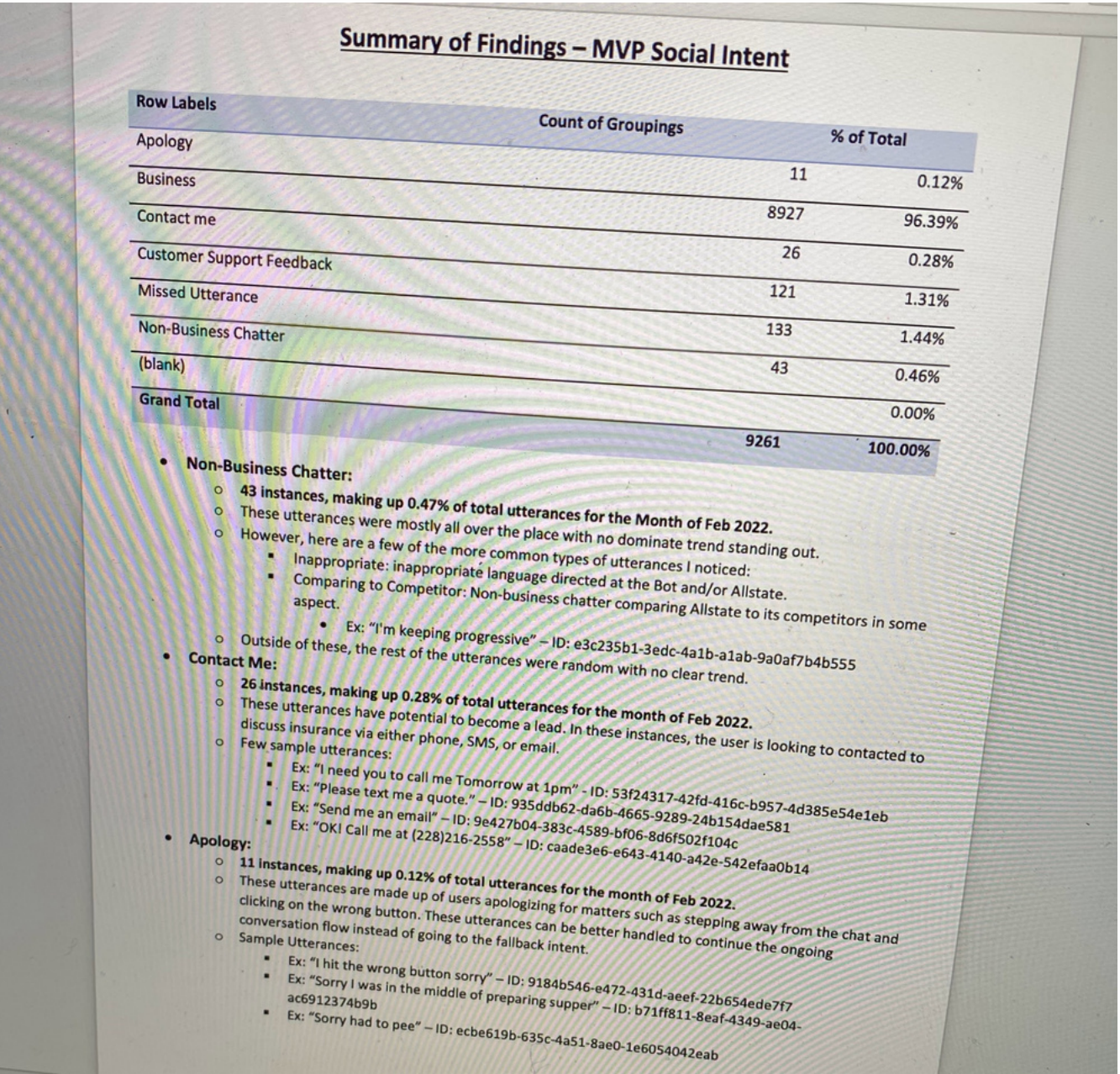
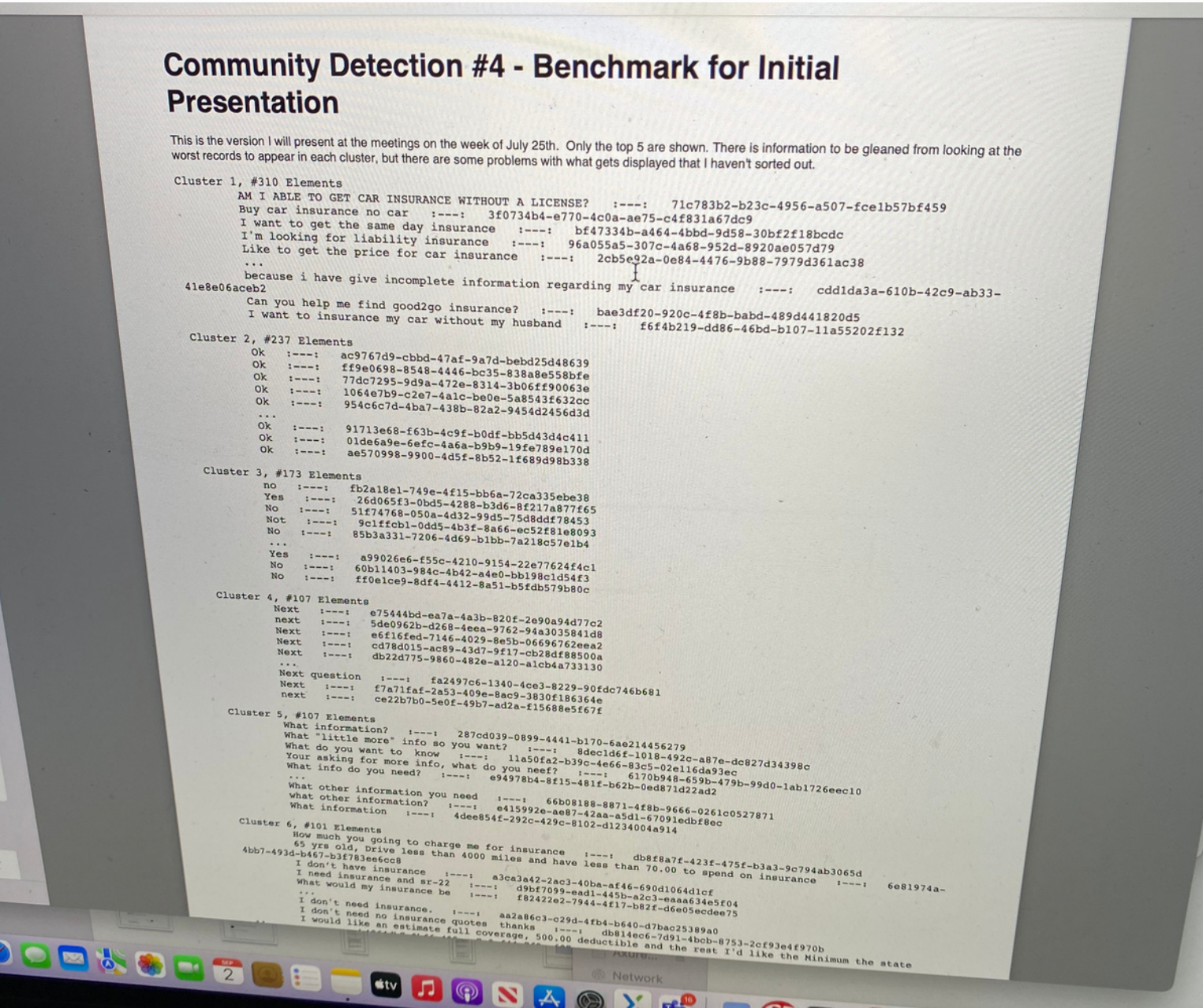
- From here, partner with D3 to further examine the data to identify more specific patterns, understand more about the context of the interactions, etc. to inform our post MVP Social Response strategy - **examples might be:**

- * 2nd Utterance Dissatisfaction - identify the trigger trends and frustration points for 2nd utterance dissatisfaction and use this data to test new Bot responses and/or content improvement vs. automatic escalation; etc.

- * Missed Utterances – identifying how prevalent 'Conversational Confirmation' utterances are in our conversational flows, such as the user entering 'Okay', 'Sure', 'Thanks' - that fall outside of expected EOF utterances

Keep recommendations clear, actionable and measurable

STRATEGY | DATA ANALYSIS

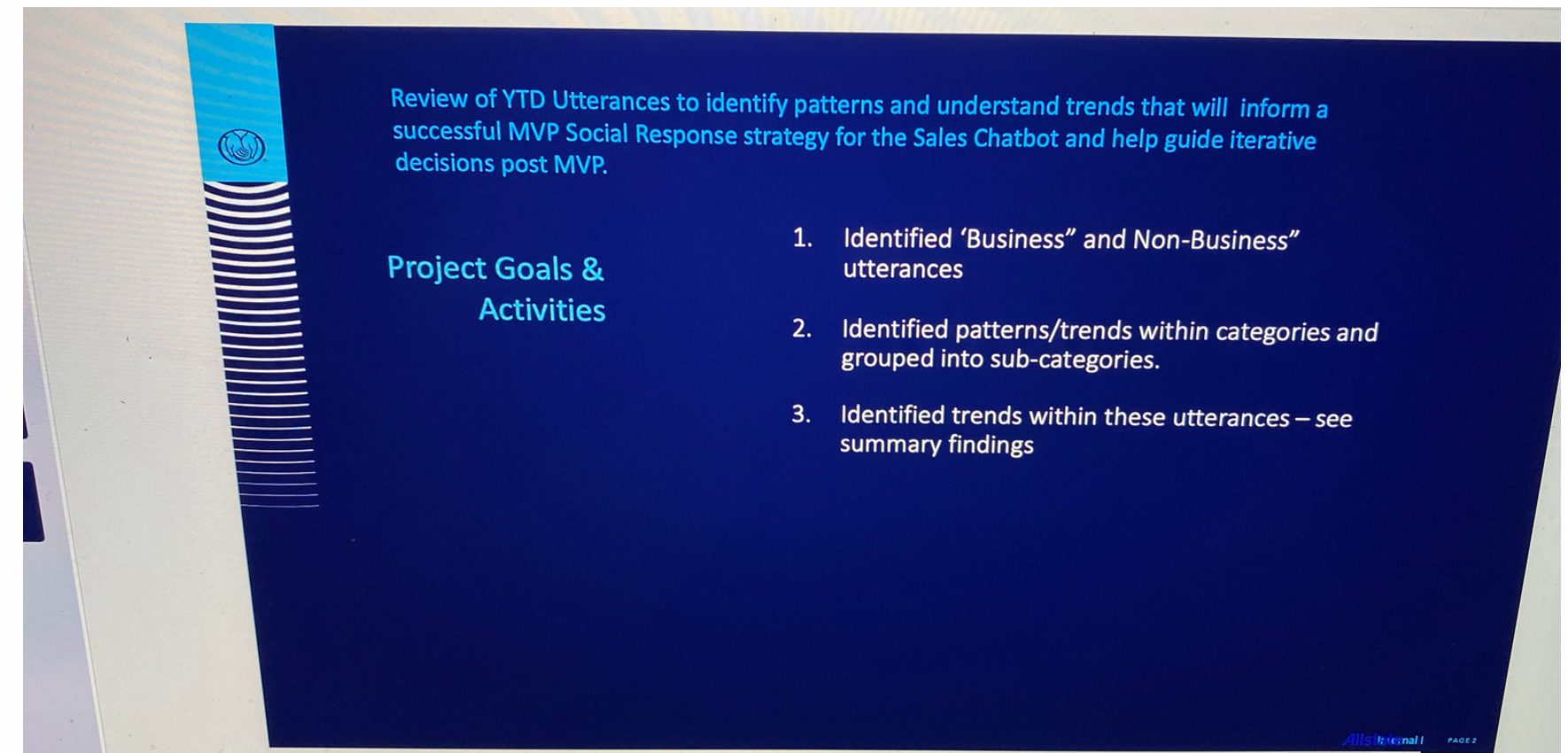
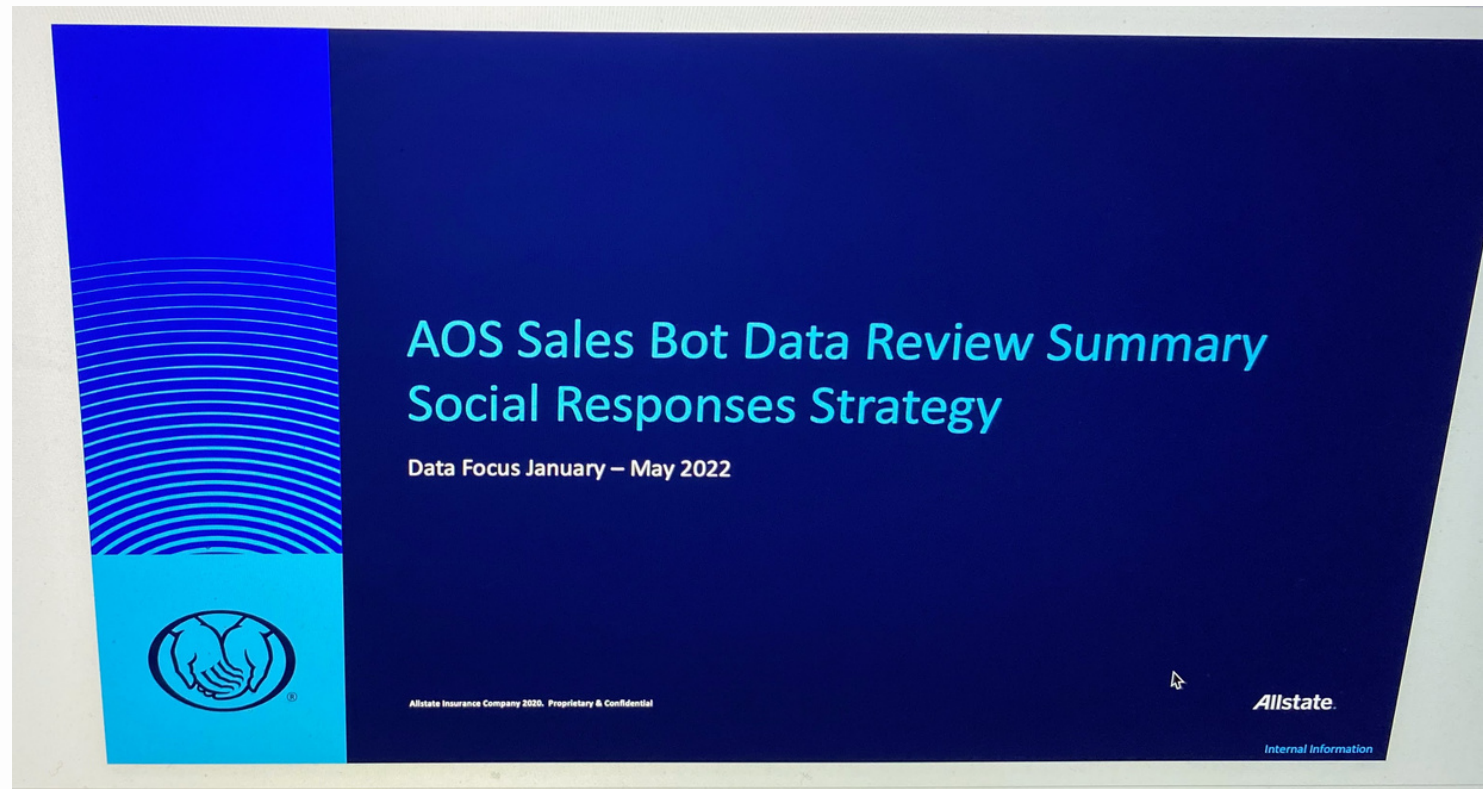


Social Response Strategy | Utterance Community Detection Algorithm and Supporting Data Analysis

Always verify your big moves. Here, unique utterance cluster detection algorithm and deep-dive utterance review designed to inform social and dissatisfaction bot content strategy implementation.

STAKEHOLDER COMMUNICATION

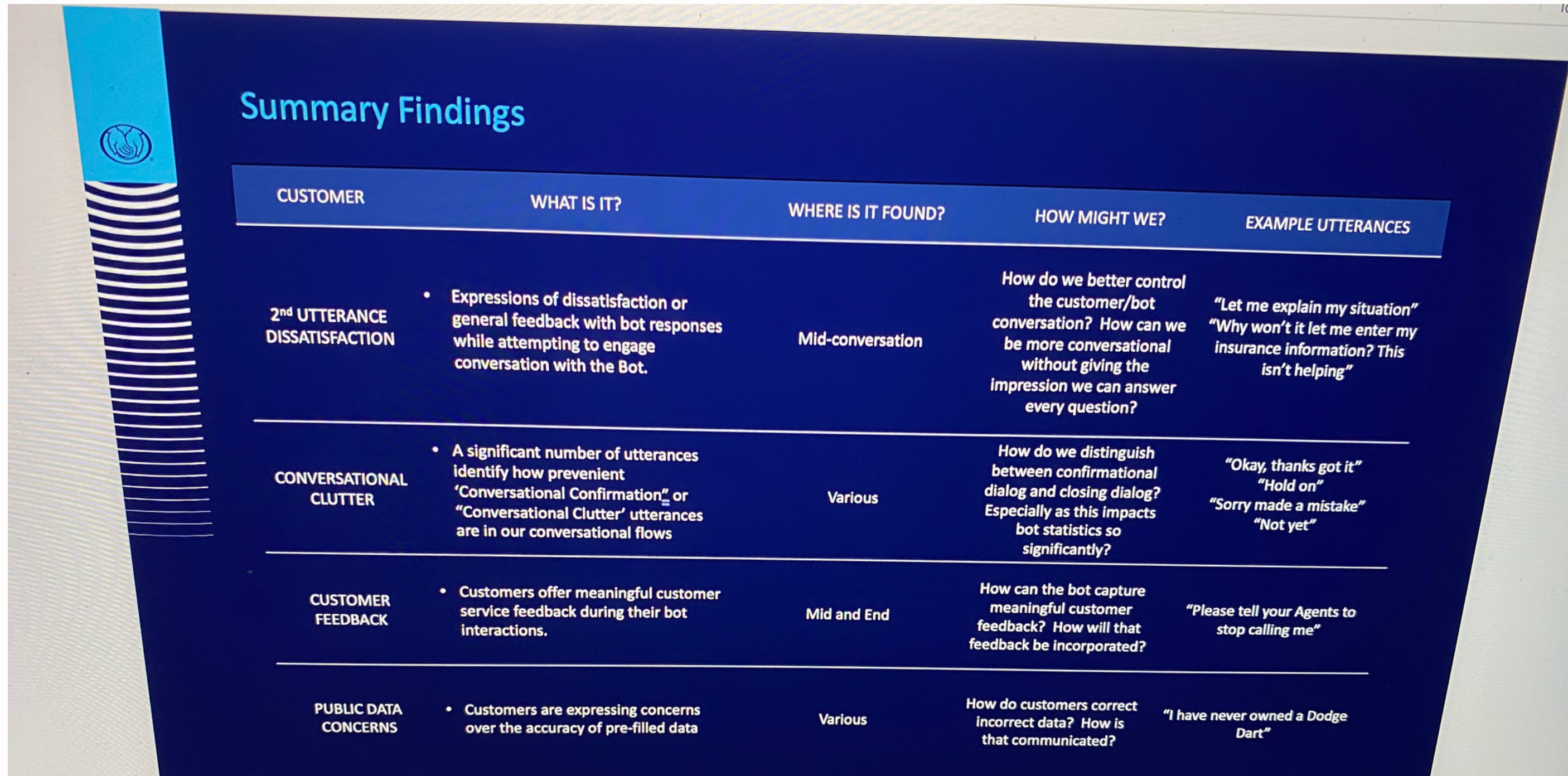
Data driven, business driven creative solutions



Over communicate - and use language that everyone can understand.
Beware of jargon blindness!

STAKEHOLDER COMMUNICATION

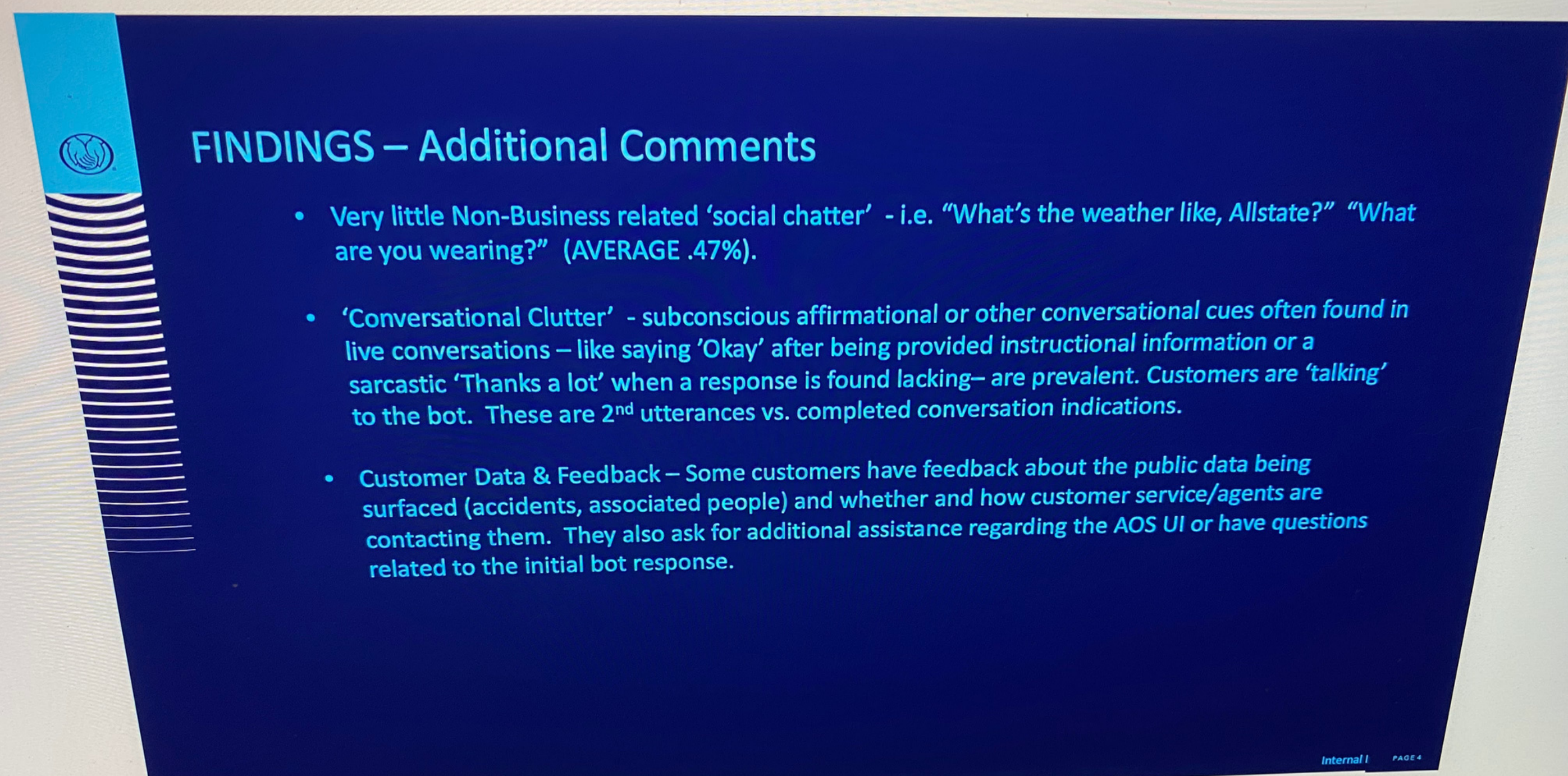
Data driven, business driven creative solutions



Summary Findings				
CUSTOMER	WHAT IS IT?	WHERE IS IT FOUND?	HOW MIGHT WE?	EXAMPLE UTTERANCES
2 nd UTTERANCE DISSATISFACTION	<ul style="list-style-type: none">Expressions of dissatisfaction or general feedback with bot responses while attempting to engage conversation with the Bot.	Mid-conversation	How do we better control the customer/bot conversation? How can we be more conversational without giving the impression we can answer every question?	"Let me explain my situation" "Why won't it let me enter my insurance information? This isn't helping"
CONVERSATIONAL CLUTTER	<ul style="list-style-type: none">A significant number of utterances identify how preventive 'Conversational Confirmation' or 'Conversational Clutter' utterances are in our conversational flows	Various	How do we distinguish between confirmational dialog and closing dialog? Especially as this impacts bot statistics so significantly?	"Okay, thanks got it" "Hold on" "Sorry made a mistake" "Not yet"
CUSTOMER FEEDBACK	<ul style="list-style-type: none">Customers offer meaningful customer service feedback during their bot interactions.	Mid and End	How can the bot capture meaningful customer feedback? How will that feedback be incorporated?	"Please tell your Agents to stop calling me"
PUBLIC DATA CONCERNS	<ul style="list-style-type: none">Customers are expressing concerns over the accuracy of pre-filled data	Various	How do customers correct incorrect data? How is that communicated?	"I have never owned a Dodge Dart"

STAKEHOLDER COMMUNICATION

Data driven, business driven creative solutions



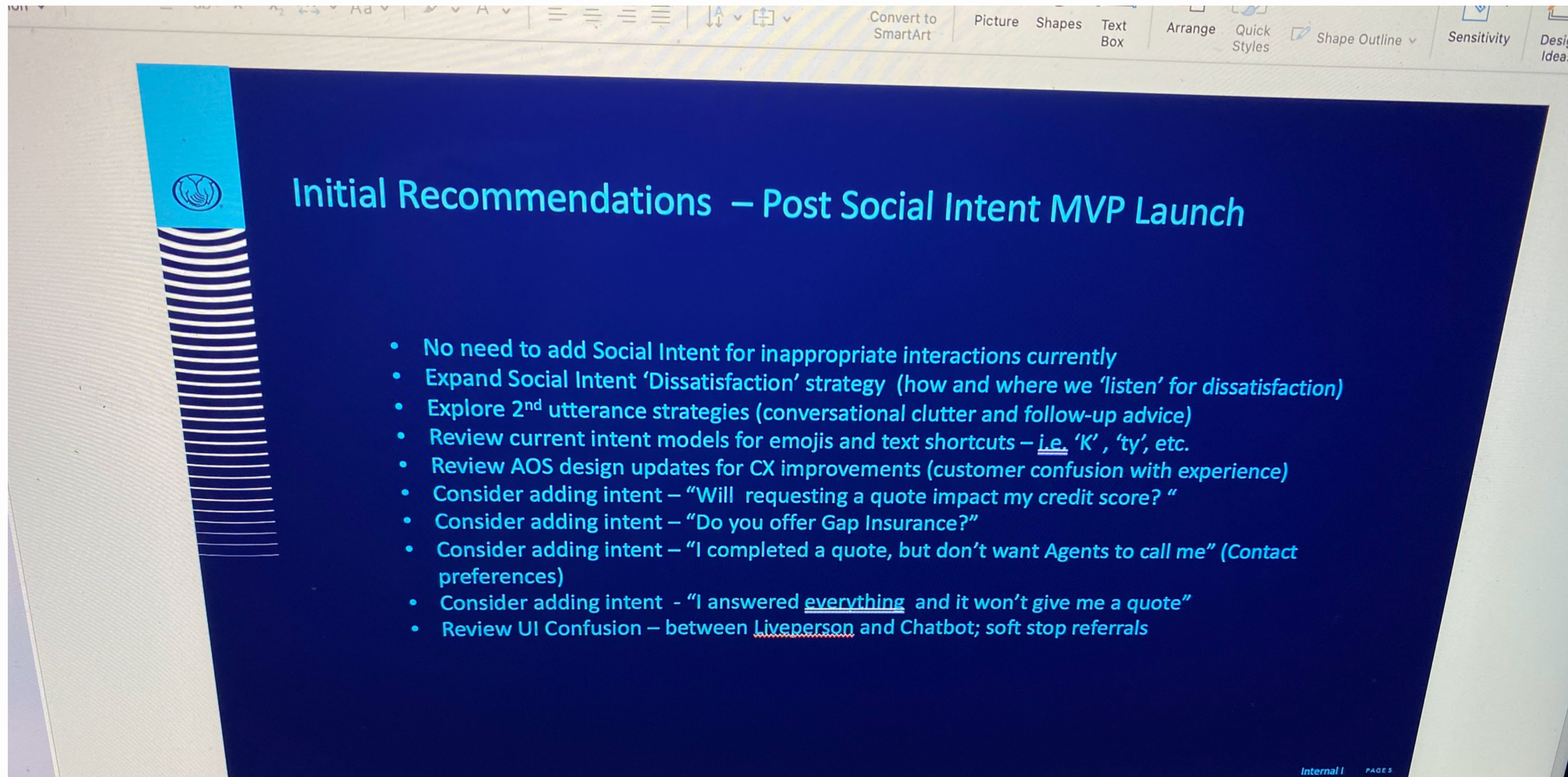
FINDINGS – Additional Comments

- Very little Non-Business related 'social chatter' - i.e. "What's the weather like, Allstate?" "What are you wearing?" (AVERAGE .47%).
- 'Conversational Clutter' - subconscious affirmational or other conversational cues often found in live conversations – like saying 'Okay' after being provided instructional information or a sarcastic 'Thanks a lot' when a response is found lacking– are prevalent. Customers are 'talking' to the bot. These are 2nd utterances vs. completed conversation indications.
- Customer Data & Feedback – Some customers have feedback about the public data being surfaced (accidents, associated people) and whether and how customer service/agents are contacting them. They also ask for additional assistance regarding the AOS UI or have questions related to the initial bot response.

Internal | PAGE 4

STAKEHOLDER COMMUNICATION

Data driven, business driven creative solutions



The image shows a presentation slide on a screen. The slide has a dark blue background with a light blue header bar on the left containing a logo. The title 'Initial Recommendations – Post Social Intent MVP Launch' is in light blue. A bulleted list of recommendations is in white. The slide is part of a presentation, as evidenced by the software interface at the top and bottom.

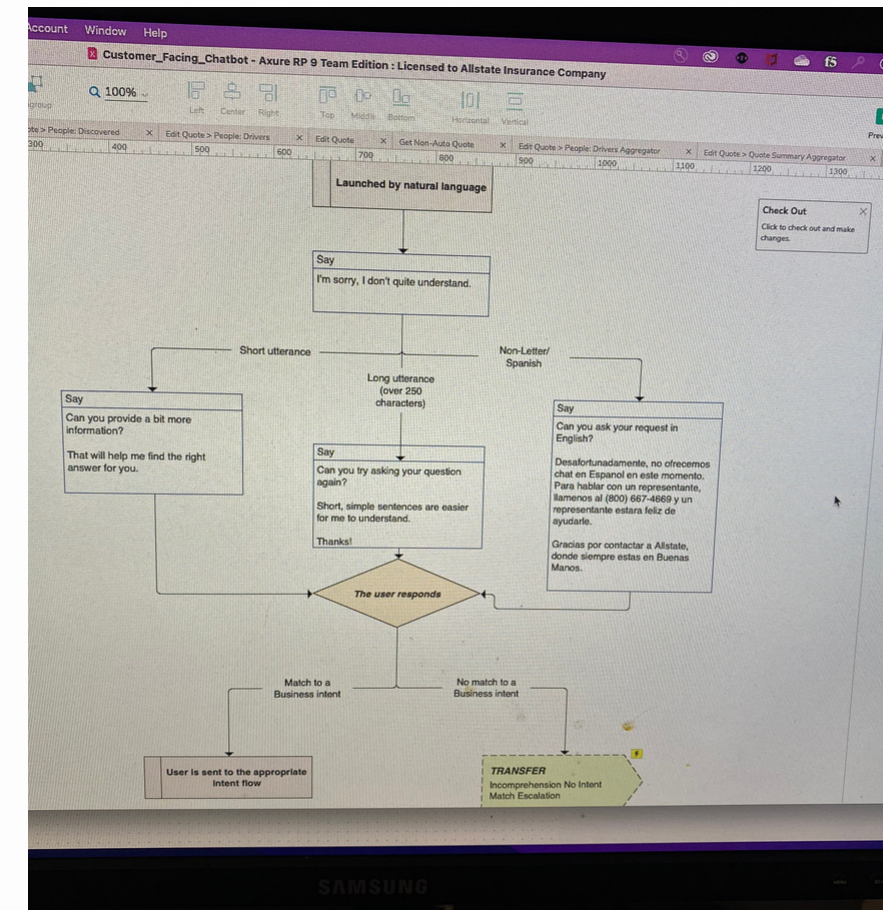
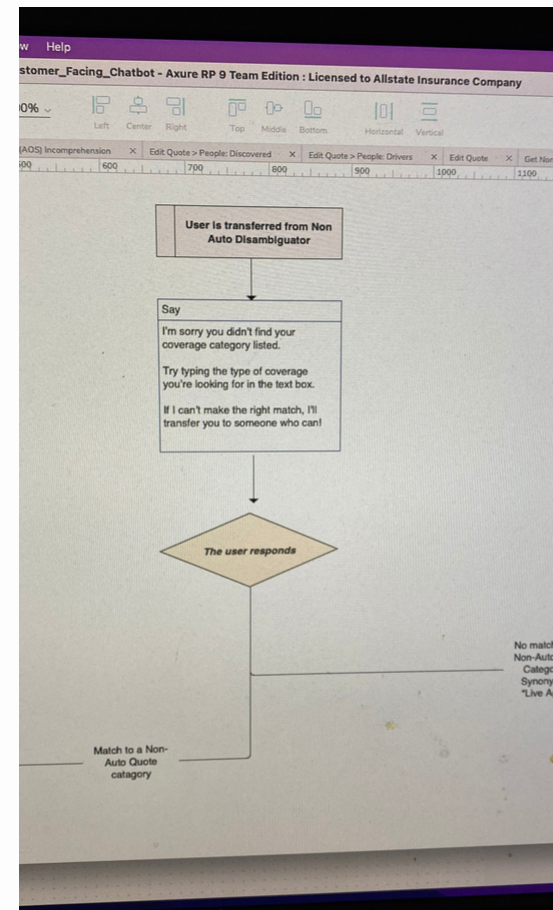
Initial Recommendations – Post Social Intent MVP Launch

- No need to add Social Intent for inappropriate interactions currently
- Expand Social Intent 'Dissatisfaction' strategy (how and where we 'listen' for dissatisfaction)
- Explore 2nd utterance strategies (conversational clutter and follow-up advice)
- Review current intent models for emojis and text shortcuts – i.e. 'K', 'ty', etc.
- Review AOS design updates for CX improvements (customer confusion with experience)
- Consider adding intent – "Will requesting a quote impact my credit score?"
- Consider adding intent – "Do you offer Gap Insurance?"
- Consider adding intent – "I completed a quote, but don't want Agents to call me" (Contact preferences)
- Consider adding intent - "I answered everything and it won't give me a quote"
- Review UI Confusion – between Liveness and Chatbot; soft stop referrals

Internal | PAGE 5

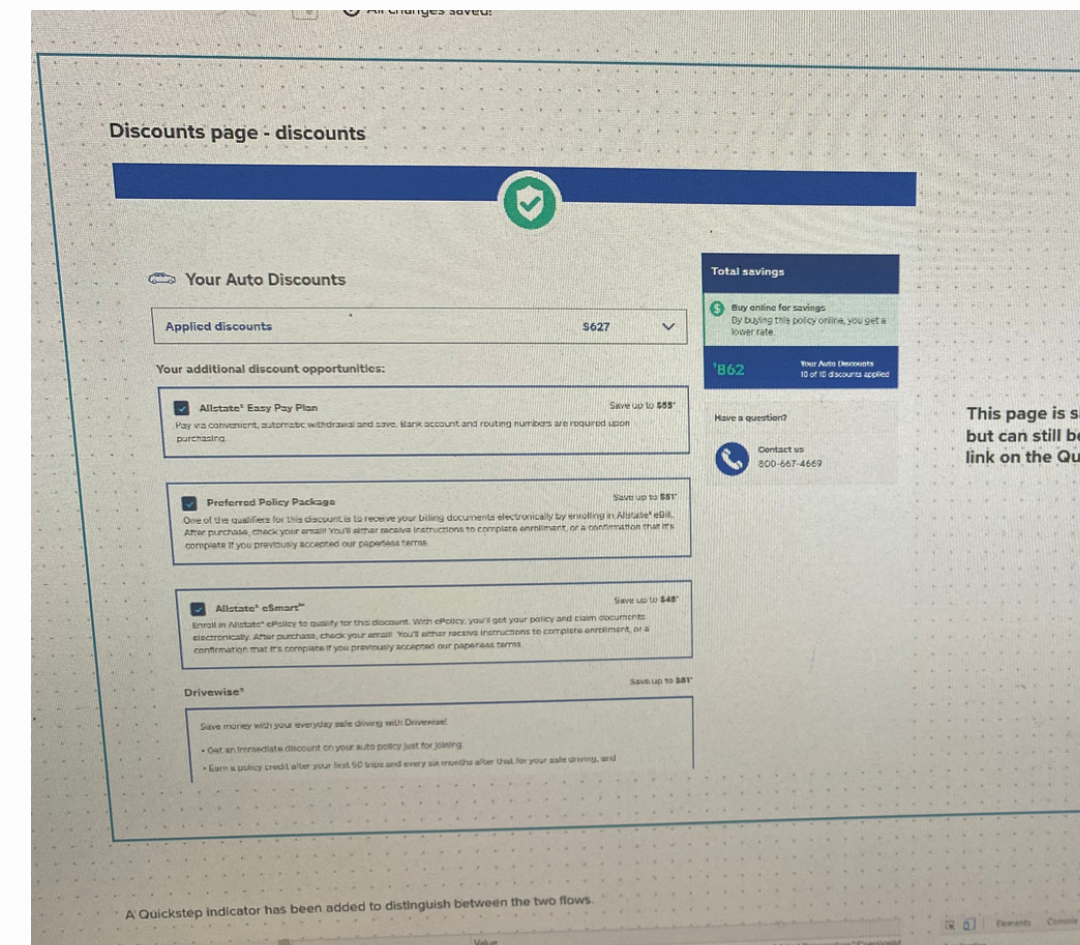
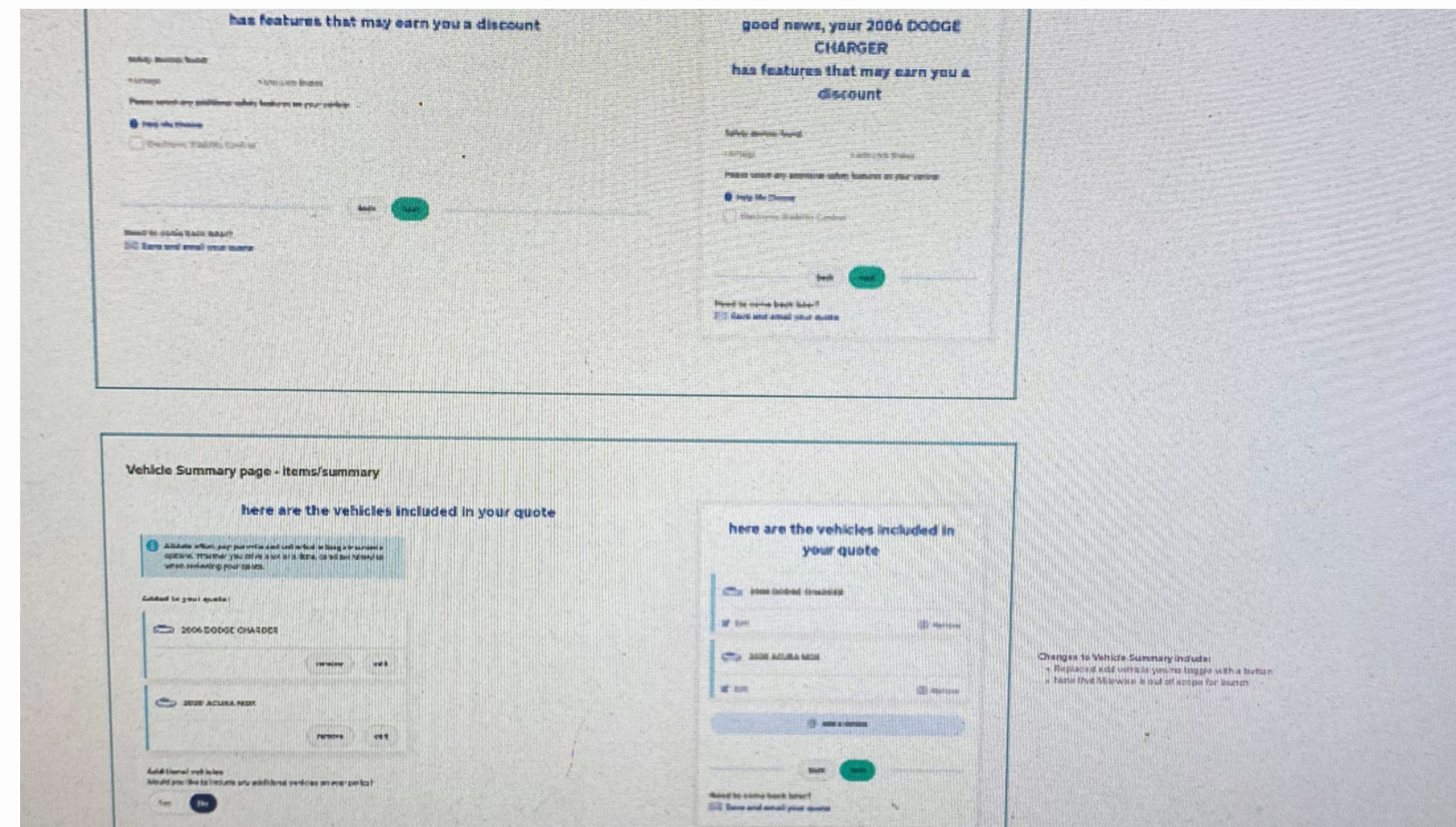
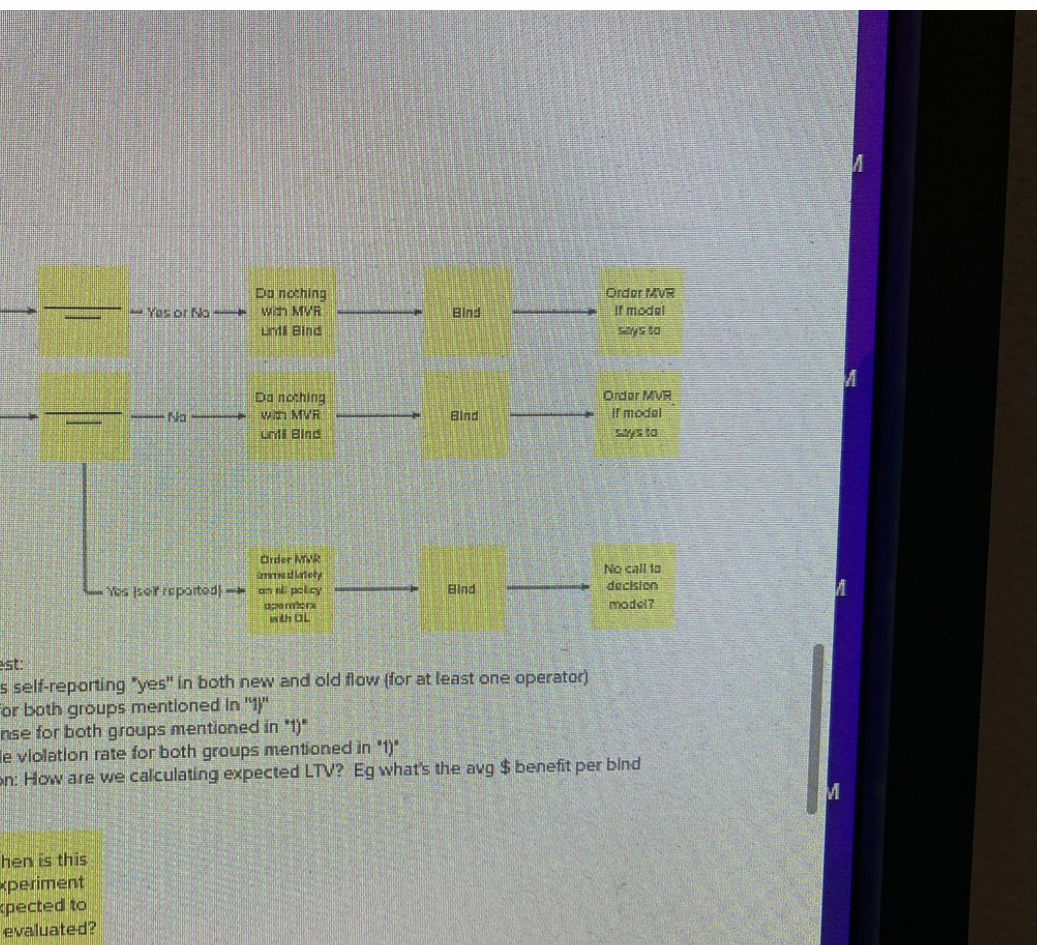
WORK WITH WHAT YOU'VE GOT

Even Axure.



THINK OUTSIDE THE BOT

Sometimes the best way to tune a bot is better alignment with any associated UI's



Sometimes the biggest problem isn't bot content.

Summary

In the end, we successfully implemented several new dialog content strategies and reconfigured the LEX Intent and NLP training for the whole bot, improving performance significantly - and increased customer perception of both the Bot and the Brand's 'listening' to them, significantly increasing containment rates.

There were many other wins too. But the greatest was re-establishing trust and collaboration among the working teams - creating true alliances across channels, establishing best practices so knowledge wouldn't be lost with staff changes and mentoring junior members to be ready to step up and lead. That was truly the most satisfying part of the engagement.

IVR Addendum

In addition to the Bot work, I also coached the IVR designers through a content review of current customer flows; collaborated with them to establish a brand-aligned **Voice & Tone style guide** and content library; performed a series of **Speech Recognition** and **Voice Biometrics** testing; and started initial groundwork for integrating **NLP capability**.

Ran **weekly workshops** with design team to review works in progress and share out new functionality information and testing data. I also partnered with product owners and technology teams to **problem-solve API issues** and to get ahead on upcoming functional enhancements so our team could look forward.