

Intelligent Chat Workstream: Report and Recommendations

Judicial Council

November 13, 2020



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OF CALIFORNIA

Directive from the Chief Justice*

The committee is directed to explore and make recommendations to the council on the potential for a pilot project using **intelligent chat technology** to provide information and self-help services.

* Refer to :

- The Chief's memorandum dated May 17, 2017 , and
- The 2017 Futures Commission Report, starting on page 211: Chapter Five: Technology Recommendations



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Intelligent Chat Workstream

Goals, Scope and Activities

- **Policy Track** – Identify legislation and/or internal policies that challenge or are needed to enable intelligent chat adoption
- **Business Track** – Identify and prioritize use case scenarios/user stories most critical to the branch
- **Technology Track** – Identify, assess and recommend technology platform(s) to explore in a pilot
- **Submit Findings and Recommendation Report**



Definition

Intelligent chat technology includes both:

- (1) Live Chat

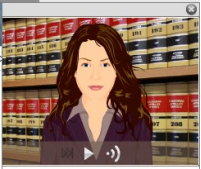
where a customer would interact with a *live* person through a website;
and

- (2) Chatbot Technology

where a customer would interact with an *automated* system on a website to ask questions and receive information



Chatbot Maturity Model



Level 0

Level 1

Level 2

Level 3

General Description

Live Chat

Basic Bot

Contextual Understanding

Self-Learning

Level of Automation

Not Applicable

None

Semi-Assisted/
Requires Human
management and controls

Fully Automated

Key Characteristic

- Human operated conversation

- Human to Bot Structured Conversation
- Simple Q&A
- Menu based
- Word based
- One Language

- Human to Bot Unstructured Conversation
- Natural Language Understanding
- Line based intelligence
- Mood detection
- Multi-channel & language Support

- Human to Bot Unstructured Adaptive Conversation
- Bot to Bot
- Conversation based intelligence
- Machine Learning
- Artificial Intelligence



Examples*

Live Chat Services

- Alameda - Self Help
- San Mateo - Self Help
- Santa Clara - Self Help
- San Diego – Self Help
- San Francisco - Self Help & Traffic

* This is not an exhaustive list



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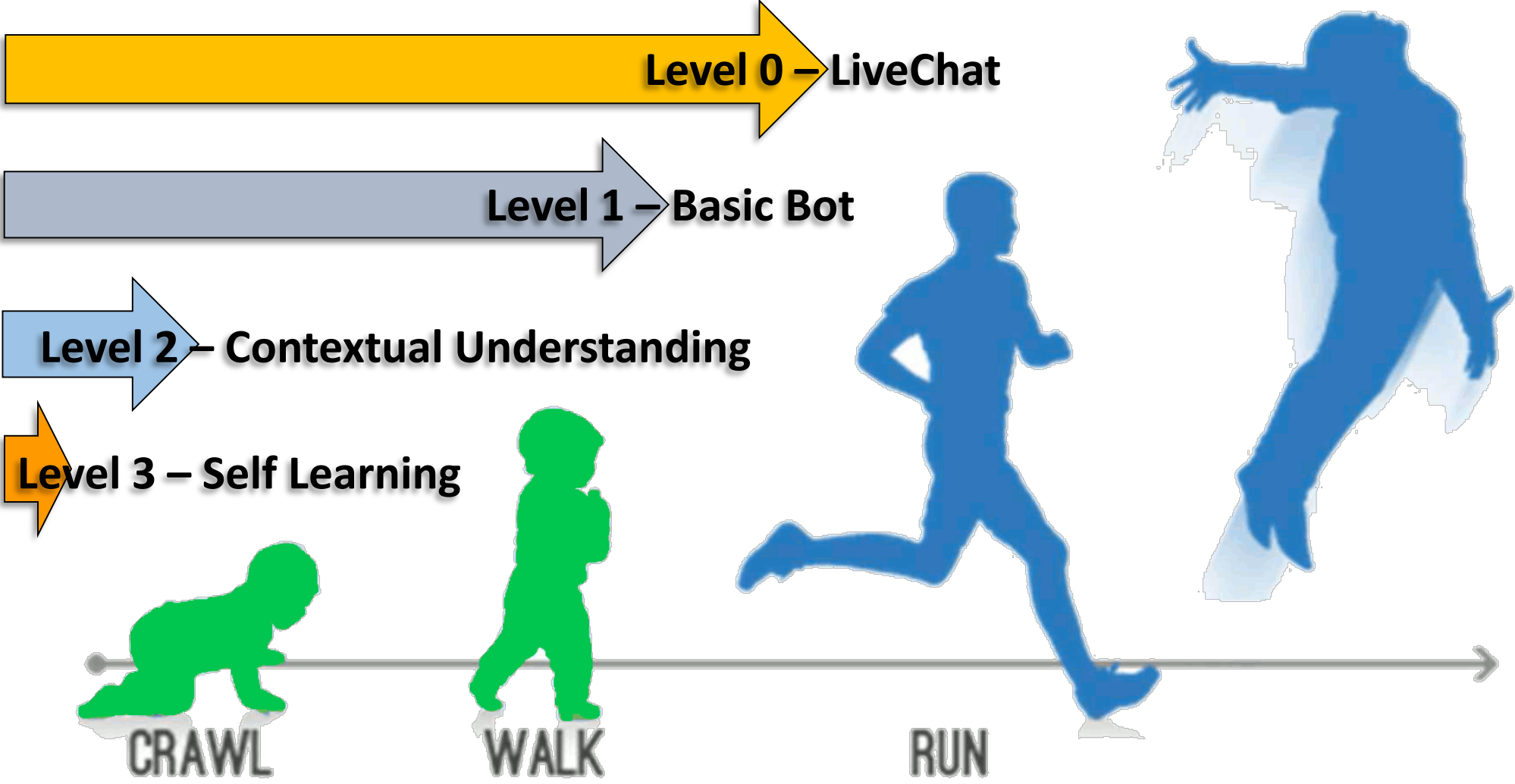
Chatbot Services

- Appellate - Self Help Portal Chatbot
- Ability to Pay – Chatbot

Integrated Chatbot with Live Chat

- Los Angeles – Remote Hearing Customer Support
- San Diego – HR Open Enrollment

Where We Are Today



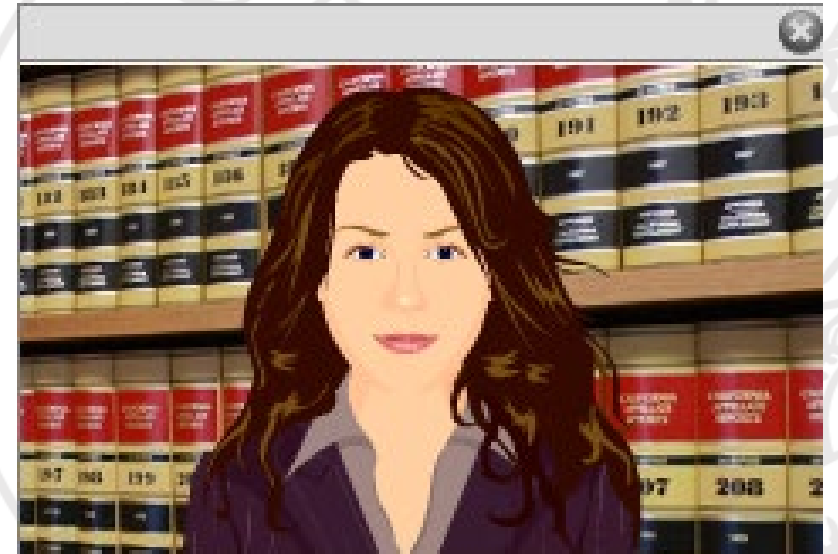
Report Contents

- Executive Abstract
- Executive Summary and Recommendations
- Business Case
- Background Research
- Chatbot Definitions
- Chatbot Maturity Model
- Workstream's Approach
- Benefits and Risks
- Key Findings
- Lessons Learned
- Conclusions



Benefits

- ✓ Increase Access
- ✓ Enhance Services
- ✓ Improve Efficiency
- ✓ Streamline Processes



Risks



- Simple conversations become more complex causing chatbots to fail
- New/Next security attack point
- Ongoing maintenance to update content as laws change



Key Findings



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Key Findings – Business Track

- Subject matter experts are crucial to developing appropriate chat bot interactions
- The California Courts Online Self-Help Center website is an excellent source of content to define chatbot topics
- Subject matter prioritization is critical



Key Findings – Technology Track

- Most of the effort is developing the chatbot content
- Using live chat transcripts to build content and train chatbots
- Machine learning and artificial intelligence need more time to mature



Key Findings – Policy Track



- No need for legislative changes to allow for the use of chatbots
- Leverage Cross Platform Policies
- Data ownership must be addressed
- The public must be informed that they are interacting with a bot
- Develop language for policies and disclaimers that should be considered before launching a chatbot service



Potential Application Areas

- Divorce and Separation
- Families and Children
- Traffic
- **Name Change**
- **Eviction and Housing/
Unlawful Detainers**
- Wills, Estates and Probates
- Abuse and Harassment
- Small Claims
- Fee Waivers
- Civil Appeals
- Gender Change
- Criminal Law (Expungement)
- Seniors and Conservatories
- Guardianship
- **Juror Services**



Recommendations

- Chatbot Services
- Live Chat and Content Development
- Machine Learning and Artificial Intelligence



Chatbot Services

1. Establish an intelligent chatbot service program
2. Publish and share chat technology project information on central repository
3. Develop vendor selection criteria and master service agreement requirements
4. Establish statewide chatbot platform in different subject areas
5. Develop best practices implementation reference guides
6. Update branch web policies to reflect recent statutes and acceptable uses for chat
7. Develop chatbots to support multiple media
8. Enable chatbots to support language access (multiple languages, ADA, etc.)



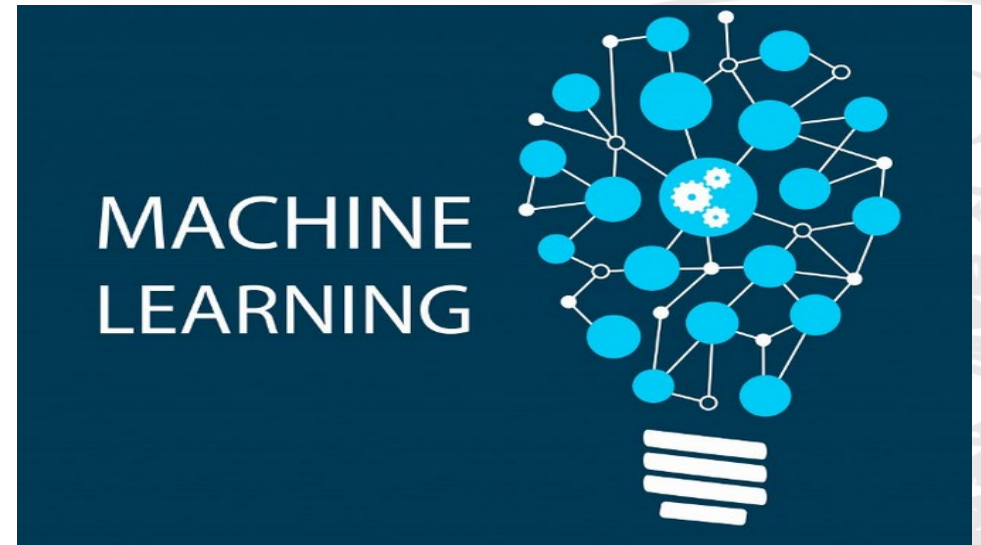
Live Chat and Content Development

1. Use subject matter experts to curate, develop, and maintain content and appropriate responses
2. Set up live chat services to provide support where the chat bot cannot provide assistance
3. Use live chat services
 - Provide immediate support to the public
 - Collect information and content for chat bot development



Machine Learning and Artificial Intelligence (ML/AI)

Continue research on machine learning and artificial intelligence to improve and advance the chatbot's ability to understand and appropriately respond.



Conclusion

- Chatbots are part of the current norm
- With the reality of budget constraints and the limitations of regular business hours, chatbots can and should play a role in serving judicial branch customers
- Public will turn to chatbot to solve simple issues to save even small increments of time
- The public would prefer to speak or interact with a person for more complex problems
- Branch has volumes of difficult-to-access static information, which needs to be curated and developed for use in a chatbot
- Chatbot technology is still evolving



Virtual Customer Service Center

Judicial Council Information Technology (JCIT) office has started an Intelligent Chatbot Pilot as part of the new **Virtual Customer Service Center** initiative.

- **Mission Statement:**

The Use of Intelligent Chat in California Courts

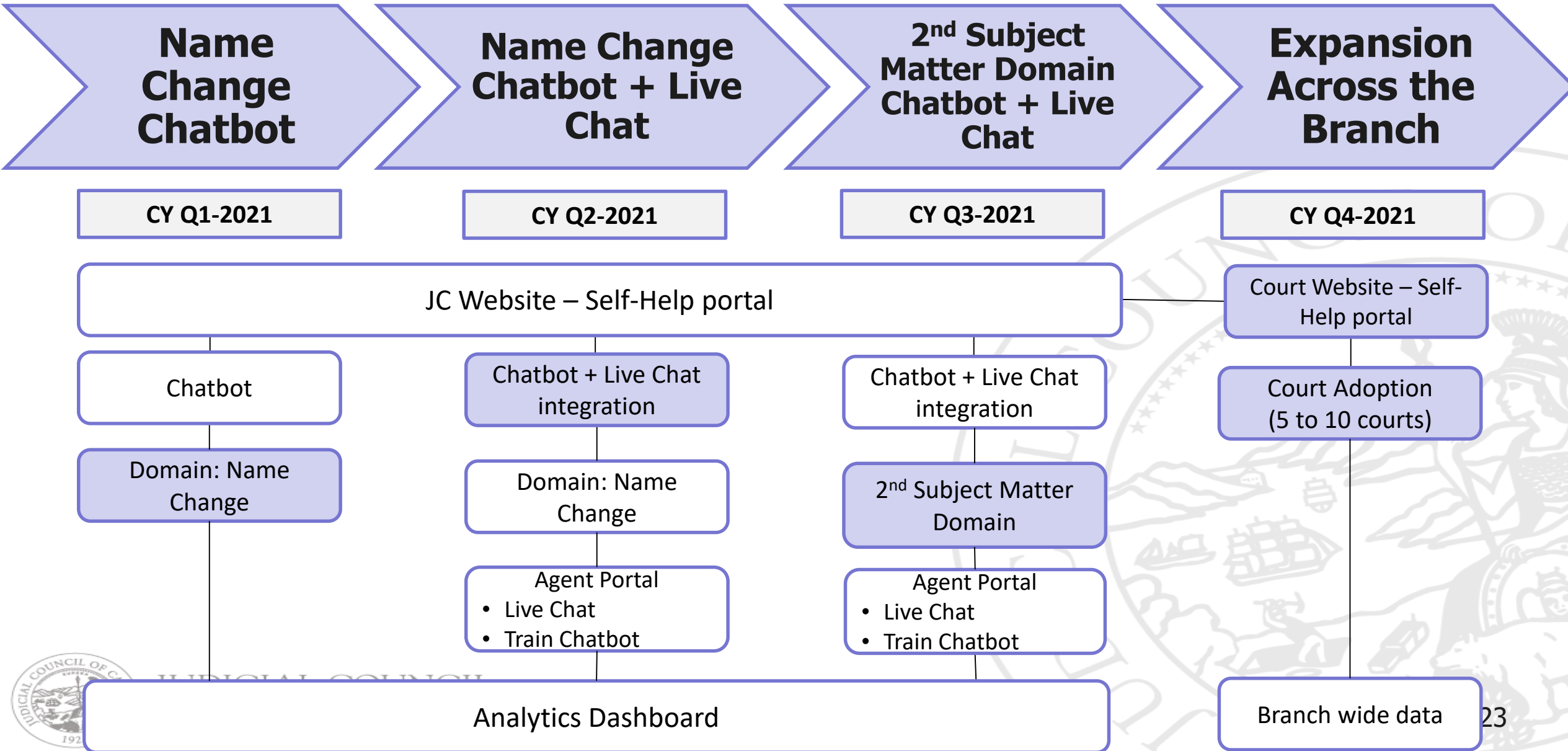
To improve public access to justice and to better serve current and future generations of Californians, the Judicial Branch of California uses intelligent chat technology to provide information and self-help services.

- **Vision**

“Enabling and providing access to court resources through the use of chat and chatbot technology.”



Product Roadmap





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