**Turing Machine**

**Strategic Machines Platform**

**Requirements and design**

Platform: Keep the webpage chat widget to do local testing apart from Twilio

**Database:**

1. Initialize the system with the following startup protocol for mongo
   1. /machine is platform database – holds collection for platform, partners, workitems.
      1. platform collection holds all registered customers, with keys to their mongodb instances
      2. partner collection – devs including cells, github is and ssn
      3. workitem collection – pricing, due dates, etc
   2. /machine/platform collections has a ‘customer’ called strategic machines. It is the platform customer. It also permits toggle for prod and test operations
   3. Access mongo db instance for a customer at machine/platform. In that instance I will find the configured and enabled agents. Each agent references an array of microservices
   4. This multitenant architecture – separation of customers by physical mongo db – permits each customer to define and manage their agents – while drawing on the master pool of available skills that have been built. The agent orchestrates the execution of the skills – using a finite state machine concept –
   5. The multitenant architecture also ensures secure, confidential management of member data and interactions
   6. Also – see the **article and code** microservices cinema – alternative ways to think about factory function and closure for the platform
   7. <https://github.com/Crizstian/cinema-microservice>
   8. A better pattern potentially

**Notes:**

1. A unique identifier is context
2. A unique identifier (cell # or web token) is used to retrieve an organization’s primary datastore location from the set of platform configs.
3. The platform configs are stored as part of the Strategic Machine master datastore at /machine
4. The session config is stored as part of an interaction – within the customers interact collection
   1. The last unexpired interaction is pulled
   2. The machine state is interrogated to determine state
   3. The interaction will restart or continue
   4. **But see example above** – use factory function to attach the config with the workobj
5. If an interaction is new or restart, context must be established, calling on classifier
6. If an interaction is a continuation, context is preserved
7. The strategic machine customer config is unique in that an interaction may be from not only a ‘member’ of the network – like an admin or employee of the company – or other invited guests – but also a ‘partner’ of the network (developer). When a message is being authenticated as a guest or member – and therefore permissioned with a certain level of authorization – the developers have other unique access?
   1. For developers – do we refactor this as a member – and then have other special info captured as a partner – both a partner and a member? Not only a customer or member of the network, but also a vendor? Or based on their cell phone number – give access to a range of agents that will dynamically post to mongo db/partner collection?
   2. **Note that member data will be pulled** from the member collection and attached to the work object – so it can be accessed and used by a microservice
8. Context is everything. It establishes the range of topics that can be handled effectively on that ‘channel’. Examples of context include buying product, registering for events, requesting content, inquiring about prices and so on
9. The classifier is purpose built for intelligent interactions, not general intelligence.
   1. If a classifier becomes too broad, it loses precision. For example, the phrase ‘book it’ will mean different things within the context of registering for an event versus capturing an accounting expense

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| --- | --- | --- | --- |
| Stages |  |  |  |
|  |  |  |  |
| intent | Below threshold? Default to designated agent (wat) | machine | Fetch agent and interrogate machine state |
|  | Active or New or Expired |  |  |
| Plugin | language | agent | Trigger call to a microservice |
|  | auth |  |  |
|  | translate |  |  |
|  | voice |  |  |
|  | location |  |  |
|  | Rate limits |  |  |
|  | loops |  |  |
|  | Escalate (key word driven) |  |  |
|  |  |  |  |
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API to static web pages –

links returned by microservice

may be an ad .. a rich communication (dynamically built with information?)

may be a page with the results of a search request – statically built

may be rich advertisement .. triggered by a location service?

Tool chain with IBM cloud

<https://www.ibm.com/developerworks/cloud/library/cl-deploy-a-hello-world-webpage-to-bluemix-app/index.html>

now = Realtime global deployment

<https://zeit.co/now>

dynamic path generation to serve up custom web page to a text message api based on paramaters

<https://www.npmjs.com/package/node-rest-client>

micro frontends:

<https://medium.com/@tomsoderlund/micro-frontends-a-microservice-approach-to-front-end-web-development-f325ebdadc16>

<https://single-spa.surge.sh/>

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| --- | --- | --- | --- |
| Turing Design |  |  |  |
|  |  |  |  |
| skills | wat | Not following (does this trigger where confidence level < %) |  |
|  |  |  |  |
|  | banter | Here is what I do – drive response based on turns etc. |  |
|  |  |  |  |
|  | social |  |  |
|  |  |  |  |
|  | blockchain |  |  |
|  |  |  |  |
|  | close |  |  |
|  |  |  |  |
|  | selltoys |  |  |
|  |  |  |  |
|  | rep |  |  |
|  |  |  |  |
|  |  |  |  |

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| --- | --- | --- | --- |
| **SHAPE OF A CONVERSATION?** |  |  |  |
|  |  |  |  |
| Visitor | intent | Response | 2nd |
|  |  | 1 | a |
| Hi, hello, haps, going on, | banter | Great to hear from you ${}? | I am here to sell you toys, ship product and take payment. If you wish to speak with a live rep, just say so |
|  |  | Hi ${} – how are you? |  |
|  |  | 2 |  |
|  |  | No really. Just text me on one of the following topics and we can get started | a |
|  |  |  |  |
|  |  | I see this is the ${} time we’ve exchanged small talk. Here is how I can help | a |
|  |  |  |  |
| Post, record. Send to email | chain | Just kidding – but wanted you to get a sense of what’s coming |  |
|  |  |  |  |
| < 70% confidence | wat | You said – outside of what I do – not sure where you’re going with that but can we get back on topic  If you send me random stuff I can send you random stuff – like this microapp | A  By the way – I see you are in Charleston --- microapp |
| What kind of toys / what do you have in stock?/ | selltoys | 1)  I have some nice things Click the link and let me know what you like | B  http microapp |
|  | In app intent detection | 2) [trigger words]  Number of items in inventory and prices of items  Can is ship you this? | No longer wants to interact – stop – or new topic |
|  | In app intent detection | []  3) I have address on file – just shipped and charged your card | This might be of interest to as well  By way – interested in our new snooze machine? microapp |
|  |  |  |  |
| Live rep, rep, help | rep | Just kidding |  |
|  |  |  |  |
| Bye, done etc | close |  |  |
|  |  |  |  |
| Thanks, thank you | social | Glad to be of help |  |
|  |  |  |  |
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