

CHATBOT DESIGN

FOR

BUSINESS

ชัชวาล สังกิตตระการ

หน่วยวิจัยวิทยาการสื่อสารของมนุษย์และคอมพิวเตอร์

ศูนย์เทคโนโลยีอิเล็กทรอนิกส์และคอมพิวเตอร์แห่งชาติ

แชตบอตคืออะไร

คุณสมบัติที่ดีของแชตบอตคืออะไร

Key Questions for building chatbot

Domain

Target User and Channel

Intention

Action

Knowledge

Known-Unknown

Why Conversational AI?

แชทบอตจะช่วยธุรกิจได้อย่างไร

Automation

Accuracy

Cost Effectiveness

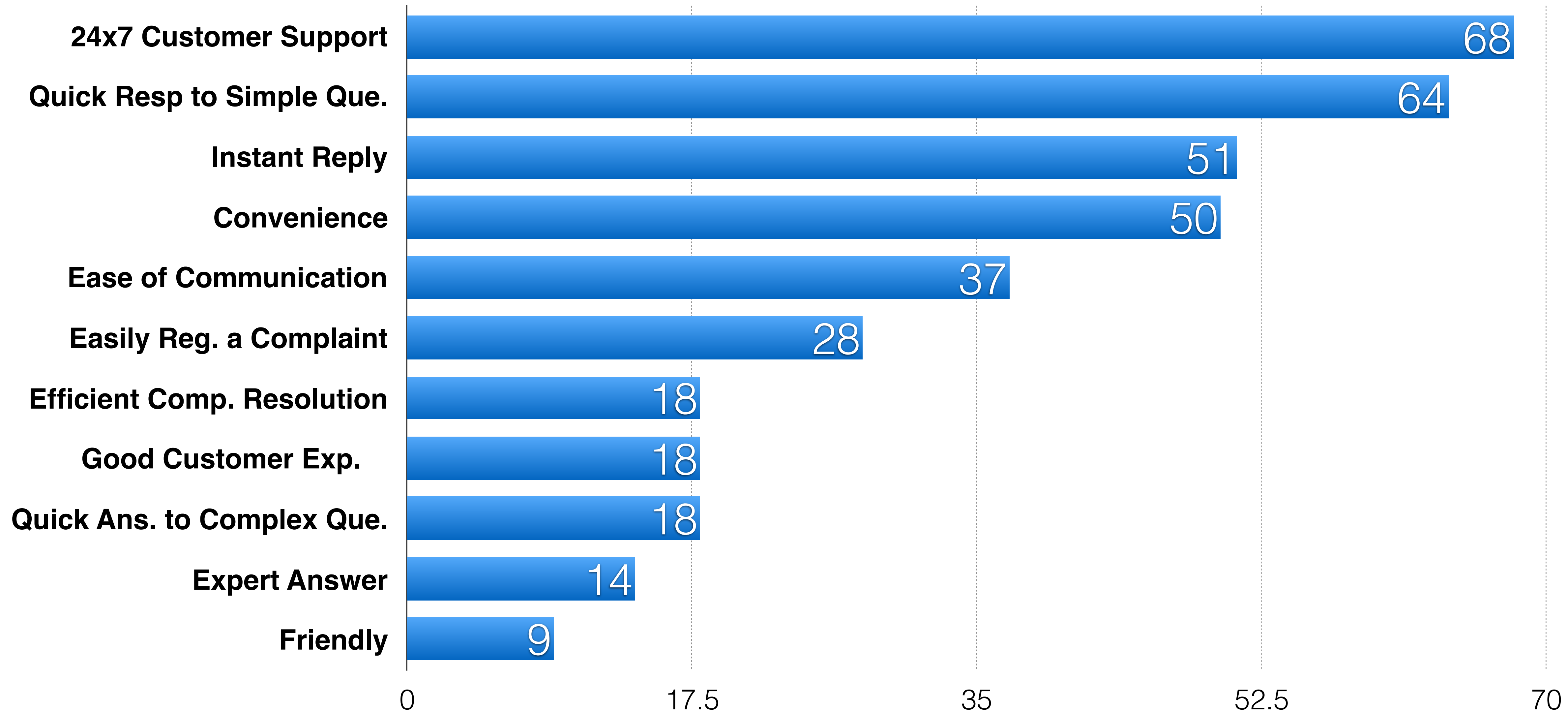
Multi-tasking

Dynamics

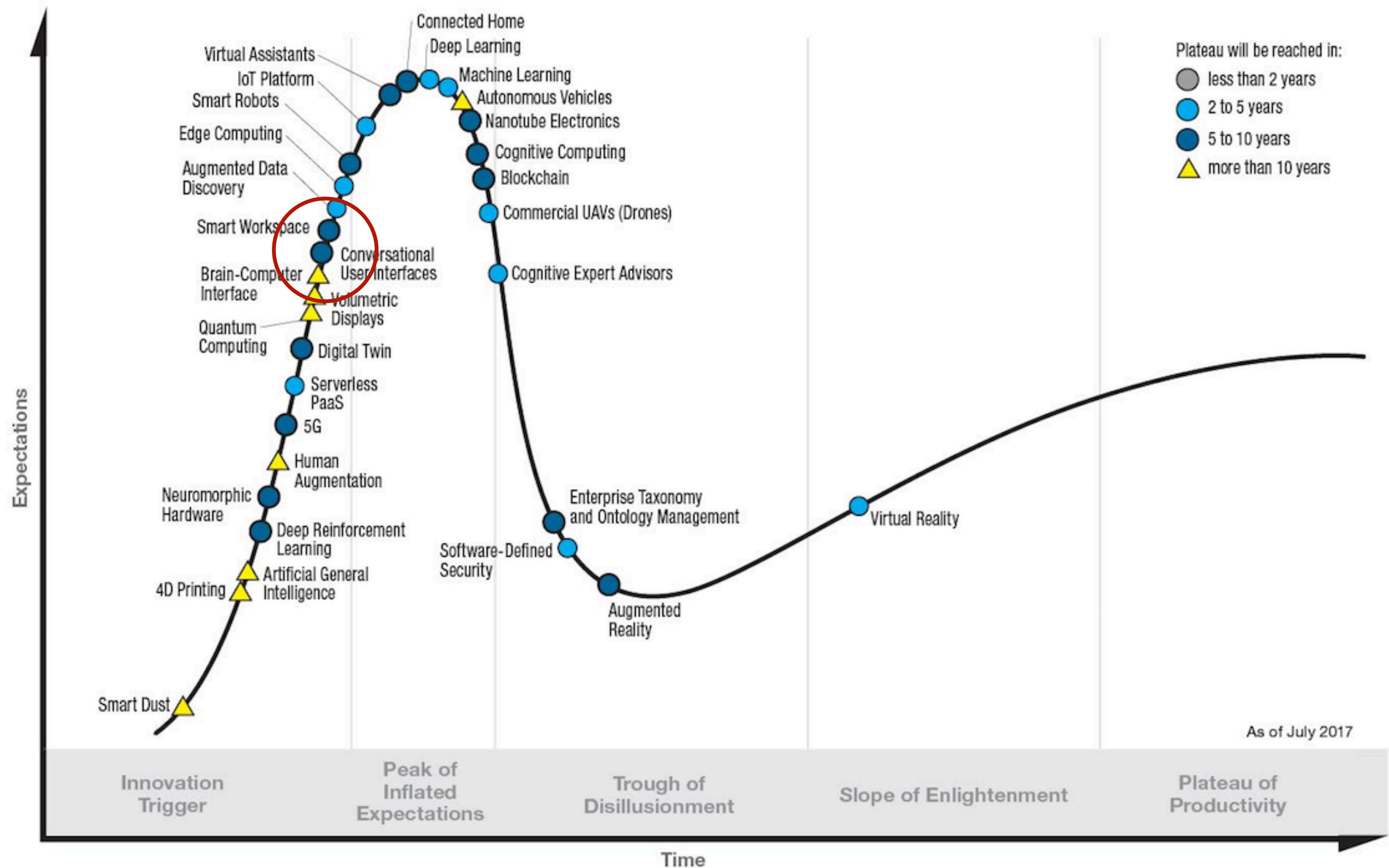
Productivity

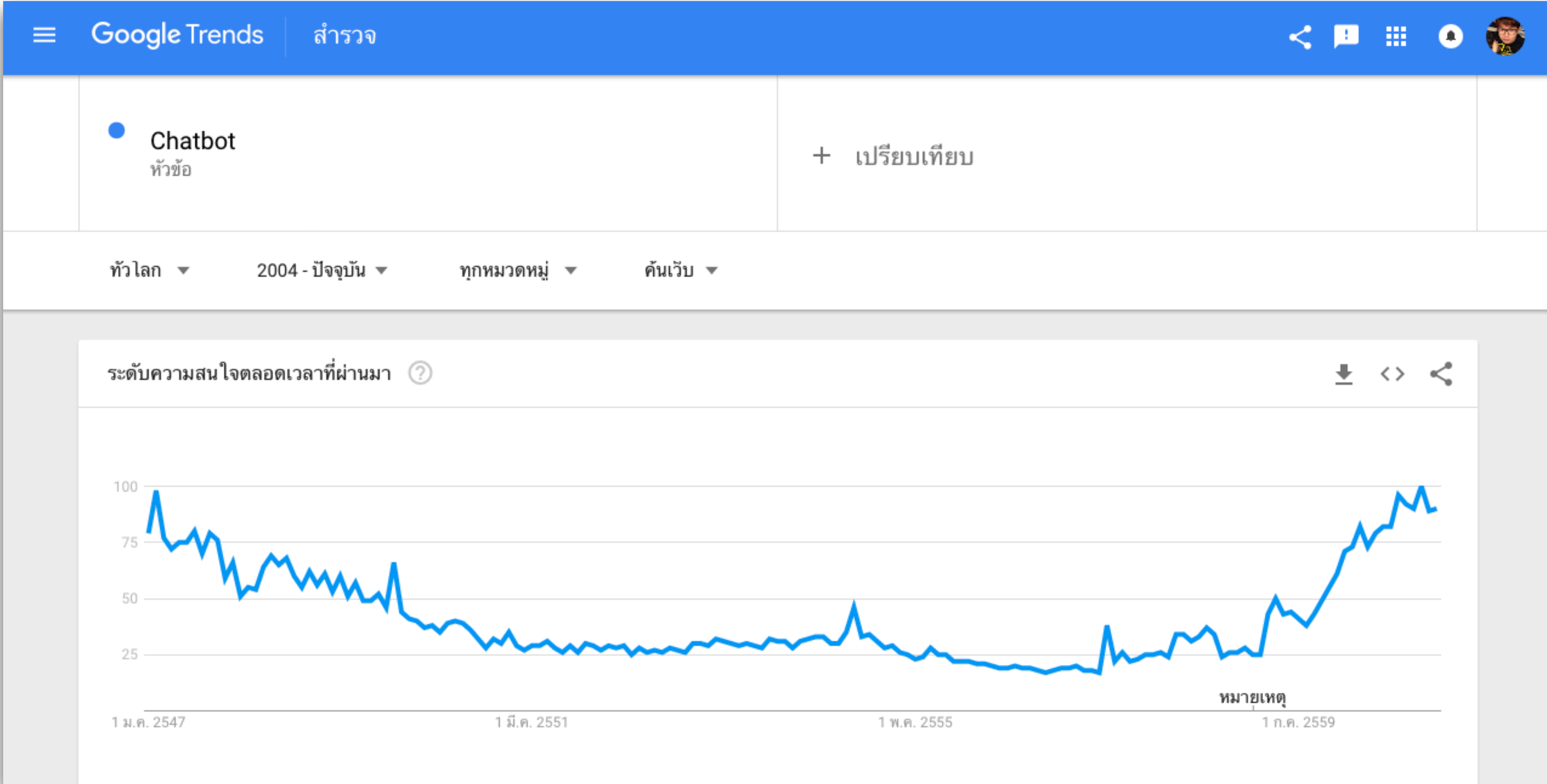
Collaboration

แชตบอตที่ลูกค้าต้องการ



Gartner Hype Cycle for Emerging Technologies, 2017





Natural Language Processing vs Machine Learning



Not NLP or ML
But
Concept and Design



Conversation

+

Artificial Intelligence

การสนทนา

การเริ่มต้นการสนทนา

ระหว่างการพัฒนา

จบการสนทนา

ความเชื่อมโยง ความต่อเนื่อง

หัวข้อสนทนา

เป้าหมาย จุดประสงค์

2015

10% of your online "friends"
will be **nonhuman**.

-Gartner-

2020

AI will **disrupt** the jobs of **1 million phone-based customer support agents**, and that **10% of B2C first-level engagement requests** will be taken by virtual customer assistants (VCAs), up from less than 1% today.

-Gartner-

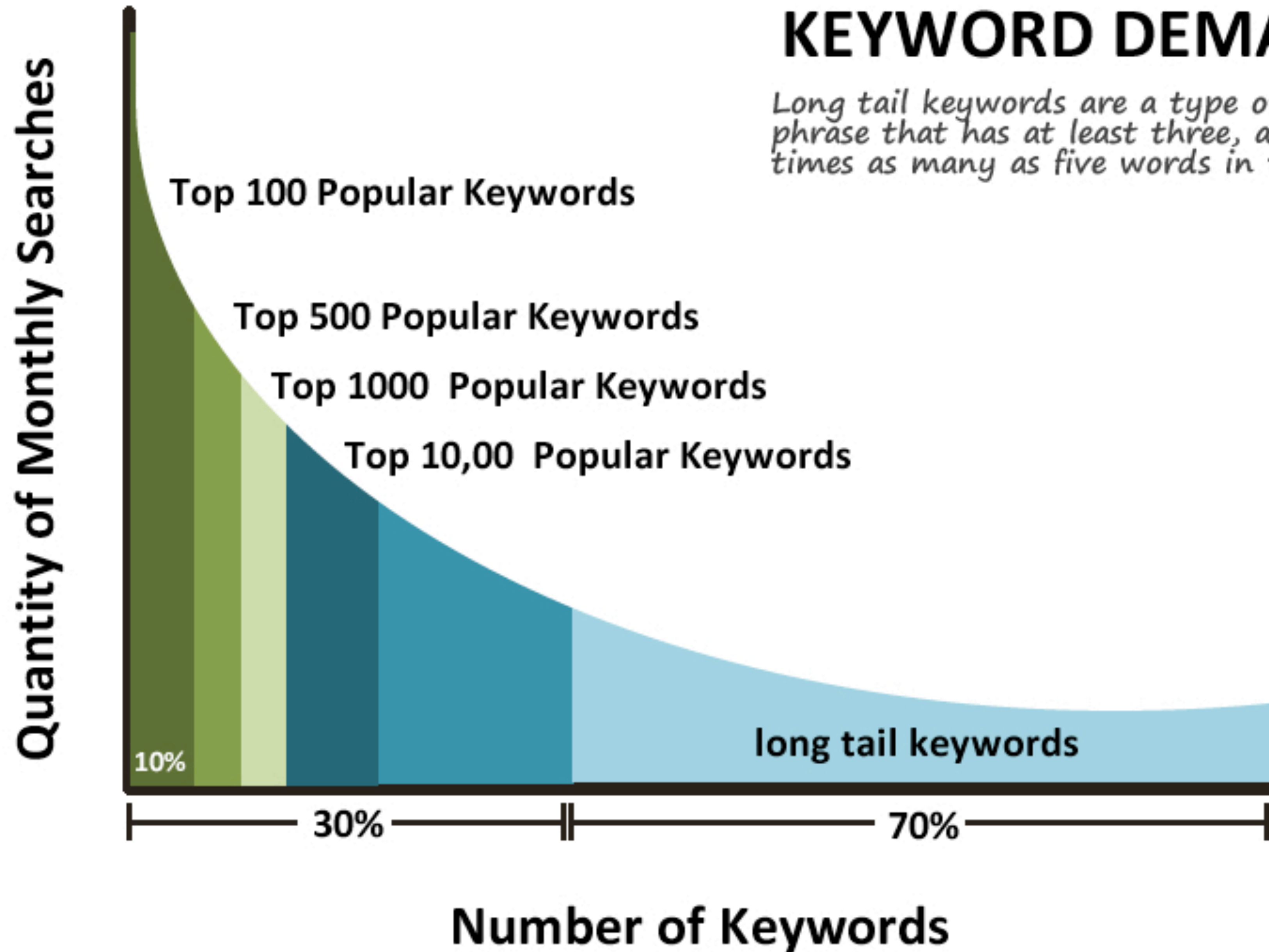
2021

Early **adopter brands** that redesign their websites to **support visual and voice search** will **increase digital commerce revenue by 30%**.

-Gartner-

KEYWORD DEMAND

Long tail keywords are a type of keyword phrase that has at least three, and some times as many as five words in the phrase.



TRANSACTIONAL CHATBOTS

ONE-DIMENSIONAL

NLP (Natural Language Processing)

Human Level

Siri

Voice Activated Google Search

EXPERT CHATBOTS

TWO-DIMENSIONAL

NLP (Natural Language Processing)

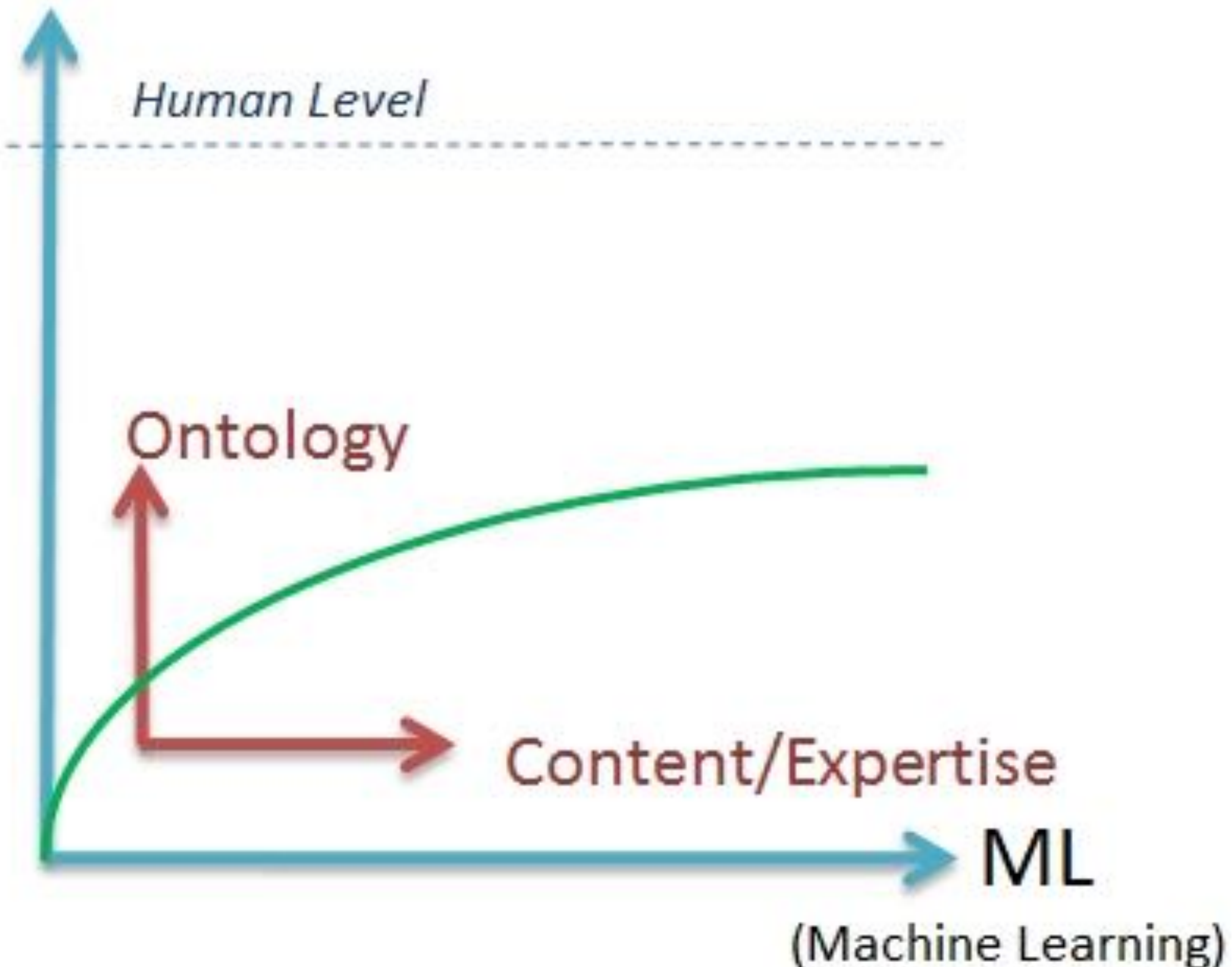
Human Level

Ontology

Content/Expertise

ML

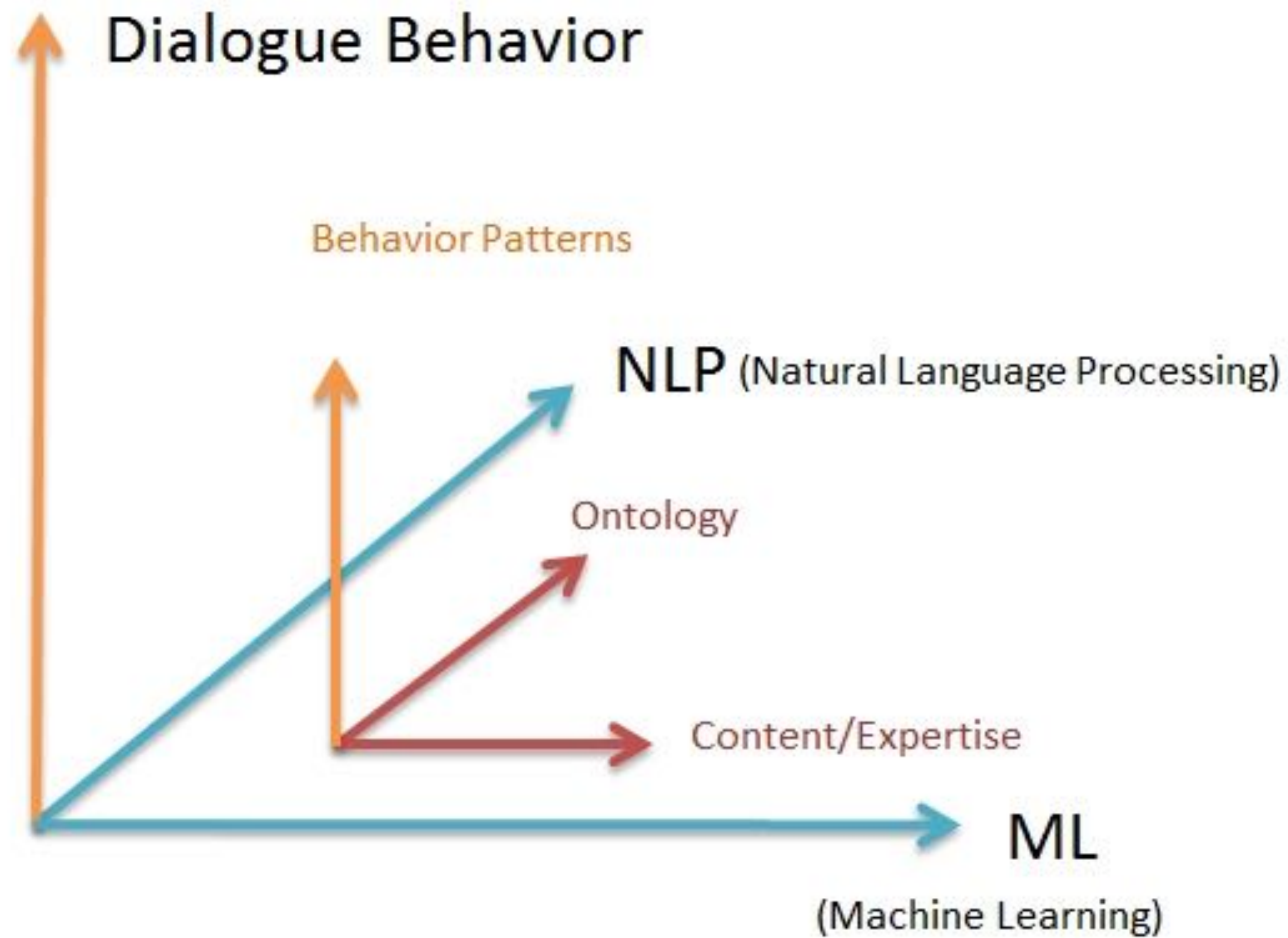
(Machine Learning)



EXPERT CHATBOTS



THREE-DIMENSIONAL



Conversation-Based Chatbot

NLP + Search + QA

Natural Language Processing

Natural Language Understanding

Natural Language Understanding

Entity
Intent
Context

Workshop

Insight & Benefit Story

Key Partners



Key Activities



Value Propositions



Customer Relationships



Customer Segments



Key Resources



Channels



Cost Structure



Revenue Streams




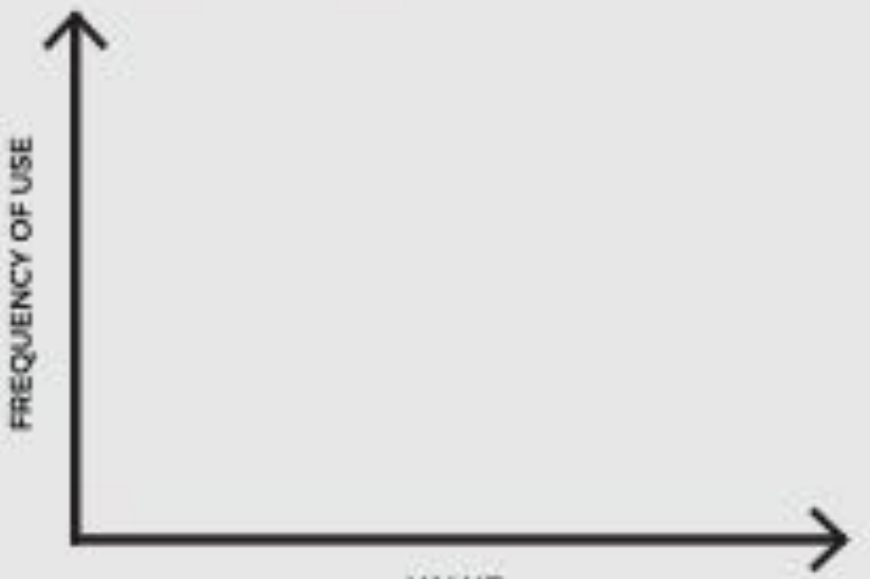
PERSONA CANVAS

Persona type _____

Author _____

Date _____



<p>Priority <input type="checkbox"/> PRIMARY <input type="checkbox"/> SECONDARY</p>  <p>“ Statement/behaviour</p> <p>”</p> <p>Name _____</p> <p>Age _____</p> <p>Occupation _____</p> <p>Location _____</p> <p>Status _____</p>	<p>Personality</p> <p>EXTROVERT _____ INTROVERT _____</p> <p>SENSING _____ INTUITION _____</p> <p>THINKING _____ FEELING _____</p> <p>JUDGING _____ PERCEIVING _____</p> <p>PASSIVE _____ ACTIVE _____</p>	<p>Technology expertise</p> <p>IT & INTERNET _____</p> <p>SOFTWARES _____</p> <p>MOBILE APPS _____</p> <p>SOCIAL NETWORKS _____</p> <p>INTERNET OF THINGS & VIRTUAL REALITY _____</p>	<p>Where to reach me</p> <p>TRADITIONAL ADS & DIRECT MAIL _____</p> <p>ONLINE ADS & EMAIL _____</p> <p>BLOGS & SOCIAL MEDIA _____</p> <p>REFERRALS _____</p> <p>PHYSICAL LOCATION/EVENTS _____</p>
	<p>Bio</p>	<p>What makes me get involved</p> <p>INCENTIVE _____</p> <p>FEAR _____</p> <p>ACHIEVEMENT _____</p> <p>GROWTH _____</p> <p>POWER _____</p> <p>SOCIAL _____</p>	<p>Goals</p>
	<p>Fave brands/apps/influencers</p>	<p>Top reason to use your product/service (USP)</p>	<p>Relationship with your product/service</p> 
	<p>Devices and platforms</p>	<p>Dealbreaker</p>	

Workshop

Persona & Botsona

This is Steven...



BACKGROUND:

- Young Professional
- Full-time employee
- B.S, Sports Management, University of Florida
- Recreational Golf Player

DEMOGRAPHICS:

- Male
- 24 years-old
- Makes >36,000/year
- Lives in an urban city
- Youngest of three

IDENTIFIERS:

- Friendly
- Business oriented
- Very busy



Workshop 2

Intents & Entities