

Relationships with Personal Assistants From the Assistant's P.O.V.

Rob Chambers

Microsoft Speech Platform
Engineering Group Manager

April 20th, 2015

Mobile Voice Conference

Sainte Claire Hotel, San Jose CA



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Agenda

Introduction
Anthropomorphism
Childhood Development
Academic Education
That First Real Job
When's the Right Time
Independence
Work / Life
Depend on Others
Experts

Introduction

Anthropomorphism

“(noun) the attribution of human characteristics or behavior to a god, animal, or object”

– *Oxford Dictionaries*

Hello
my name is

What's in a Name?

130 million babies will be born on earth this year
Each will be given a name...

"We intuitively associate our identity and the identity of the person we are introducing with a name"

I AM [name]...

THIS IS [name]...

What's in a Name?

"Hi, I'm Rob Chambers"

... not ...

"Hi. My name is Rob Chambers"

Where names come from...

Historic names? Family history? Culture? Pop-Culture?

Cortana: Family name; Halo AI character

Siri: Family name; SRI International

Google Now: Family name; Google

Name pride!

What's in a name?

"What's your name?"

"Who are you?"

"Do you like your name?"

"Do you know who I am?"

"Do you know Siri?" ... "Do you know Google Now?"

Childhood Development

“Training a puppy is like raising a child. Every single interaction is a training opportunity.”

– *Ian Dunbar*

Meeting Babies Basic Needs ...

Babies need feed constantly at first, then less, and less
Their "battery" capacity goes up and up throughout life...
But they'll always need recharged...

Keeping them safe; don't go in the pool unassisted

Movement...

Immobile; you move your baby around; wearables!
Amazon drones!



Sight and Hearing...

Focuses on parents, then objects, then self

Fuzzy vision at first, 2D, eventually depth perception

Loves faces



PAs: Can't currently see at all; soon w/depth perception

Environmental understanding, Face detection, recognition

Object permanence...

Out of sight, out of mind, literally

Partially hidden objects,

Fully hidden objects, when objects were seen to be hidden

Fully hidden objects, known to "exist", searches last place

Understanding of self being separate from outside world

Self defined by skin, and baby's reach; Me + Mine

Speech input/output ...

Single language at first

Cooing, Babbling, Vowel Noises, Single Syllables, Double...

Few words, Small sentences, Larger linguistic constructs

PAs: Beeps, .WAV sounds, synthetic, concatenative, prosody

Love being talked to, Read to... Different Accents...

Object classes...

Basic communication skills required; class labels

People: Mama, Dadda, Brother, Sister, Grandma, John...

Things: Bottle, Drink, Water, Food, Ball, Toys

Places: Outside, Park, Grandma's House

Classification hierarchies ... go on ... and on ... and on ...

Temporal concepts...

How do you tell time?

Important dates: Holidays, Birthdays

“When were you born?”

2017

| JANUARY | | | | | | |
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| FEBRUARY | | | | | | |
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| MARCH | | | | | | |
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| APRIL | | | | | | |
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| JULY | | | | | | |
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| AUGUST | | | | | | |
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| SEPTEMBER | | | | | | |
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| OCTOBER | | | | | | |
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| NOVEMBER | | | | | | |
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| DECEMBER | | | | | | |
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Family...

Who are they? Parents? Grandparents?
Names? Birthdays? Likes/dislikes?

Family/Cultural Pride!

"Who's your daddy?"

"Do you like Microsoft?"

"What do you think about Microsoft Office?"



Stranger Danger!

Should I really be talking to this person?
What should I share with them?

Security / Privacy / Biometrics...



Respect / Separation from family

Respect your elders, your friends, their families

"Do you like people?"

"Do you like Siri?"

Going over to a friend's house ...Why go there?

"What do you think about Android?"

Sense of self

Values... Principles...

Introverted? Extroverted?

Sense of humor

“Tell me a joke!”

Academic Education

“The roots of education are bitter, but the fruit is sweet.”

– Aristotle

So much to learn...

Photographic memory!

"Who is John F. Kennedy?"

"When was he born?"

"When did John F. Kennedy die?"

"Will you ever die?" ... Existentialism...

What's it all mean...

Philosophy... Psychology... Self-awareness...

Reading people ... what they like, don't like ...

Sensors... Emotion detection...

Language Studies

“The more you speak more languages, the more you understand about yourself.”

– Sandra Cisneros

To learn (or not learn) all the languages...

Over 6000 languages in the world!

Most spoken by less than 1,000 people.

"Can you speak Spanish?"

"Can you speak Chinese?"

"Can you speak Klingon?"

Becoming passable in a language...

30,000 words heard per day in immersion school

2 years required to be barely passable

That's 21 million words

No immersion school for PAs; data, labeling, training

Some words heard a few times? How's that spelled?

That First Real Job

“Choose a job you love and you never have to work a day in your life.”

– *Confucius*

Training, on the job, classroom...

Some specialization

Know the company tools

Don't duplicate what already exists

My First Boss

Who is this unique person?

What do they say they want?

What do they actually want?

Privacy... Discretion... Keeping track of it all...

When's the Right Time

"Lost time is never found again."

– Benjamin Franklin

Where? When? How?

Wherever we are...

Whenever we need to... 24x7 ... every week...

In person... IM... on the phone...

Explicitly and implicitly...

Over the shoulder, almost telepathically...

Independence

“The greatest gifts you can give your children are the roots of responsibility and the wings of independence.”

– Denis Waitley

Unsupervised...

Existence without the boss

Task completion, at the right time

On the lookout for changes

More than the immediate task... long running tasks...

Interfacing with the outside world; communicating...

Work and Life

“I just want to make sure I have a sense of balance between work and life, because work is my life and the lines can get really blurry.”

– Drew Barrymore

Work and Life...

Context... vision... hearing...

Where are we?

Privacy?

Other groups, external families...

What else is important? When?

Depending on Others

“Know or listen to those who know.”

– Baltasar Gracian

Depending on existing Tools...

Calendar, task lists, reminders, rolodex

Internet for world data

More specialization/systems

Custom vocabularies/intents

Depending on Others in the company...

Knowing what you know... What you don't
Know who really knows

How much transparency?
HR / Legal

Do I need an external Expert?

Experts

“An expert knows all the answers - if you ask the right questions.”

– Levi Strauss

I can't really know everything, can I?

Need to be able to depend on those outside

Need to trust they'll do the right thing, verify they do

Network of experts in specific fields

Why have your primary care physician do surgery?

Specialization enables modern society

