Dr. Chan Lee

☑ Career

- Present,
  Professor of Vocational Education & Workforce Development in Seoul National University
  Dean of Extension College at Seoul National University
  Chairman of the ATD Korea Summit

- Former,

  Director of the Career Development Center in Seoul National University
  Team Leader of HR Team in LG Electronics, USA, Inc.
  HR Specialist of HR Team in LEGO Korea

- A member of ASTD ICE Program Advisory Committee (PAC) in 2010 and 2011

☑ Book

- Work and Learning Balance for the Post-COVID-19 Era: Insights from the Republic of Korea, Powering a Learning Society During an Age of Disruption, (ADB Press, 2021)

- Talent Transformation for the Digital Transformation, CTDO Magazine, (ATD Press, 2021)

- Destination Facilitation: A Travel Guide to Training Around the World (ATD Press, 2018)

- Implementing On-the-Job Learning: Thirteen Case Studies from the Real World of Training(ASTD Press, 2002)

☑ Education

- Ph.D. in Human Resource Development, The Ohio State University, USA

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I. Environmental Changes in the DX

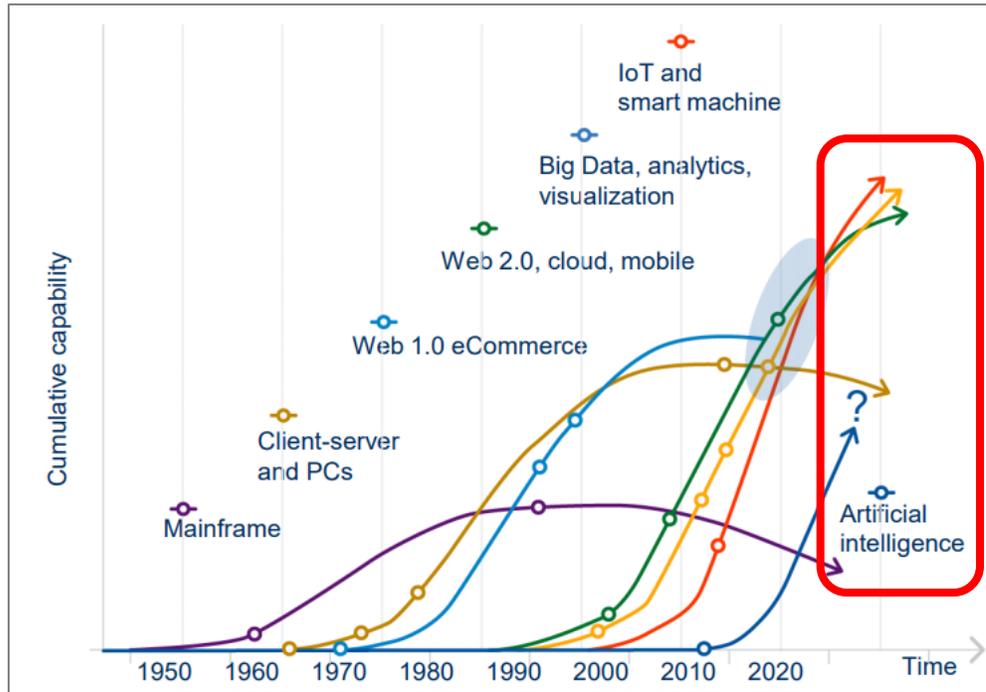**Digital Transformation Era**

Post Pandemic, "New Normal"

Significant impact across socioeconomic, political, cultural, and daily life…

Changes in the labor market
& the rapid spread of 'Digital Transformation'

Digital Transformation Era

5 ways Digital Business Transformation

- 20% of worldwide businesses will create digital divisions

- Cloud-first strategies will dominate digital growth

- "Buy" buttons will be everywhere

- DOP will further replace ERP, leading to more platform innovation

- Outcomes-based pricing will grow for digital transformation services
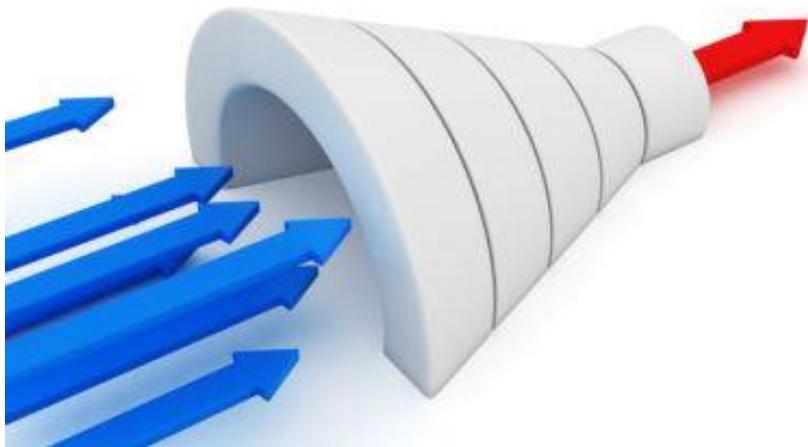
FORRESTER®

I. Environmental Changes in the DX

Do AI really Replace Human Workforce?

Albeit the rapid shrink of types of tasks that AI cannot perform,
three types of tasks corresponding to engineering bottlenecks
are hard to be replaced by automation

"Engineering Bottleneck
(Frey & Osborne, 2017)"

1 **Perception and Manipulation Tasks**
Tasks requiring the high and deep level of perception and manipulation

2 **Creative Intelligence Tasks**
Tasks requiring creativity, such as proposing original ideas appropriate to creative values

3 **Social Intelligence Tasks**
Tasks requiring human social interaction and cognition of human emotions

Global HR Trends

1. Hybrid work model
   - Organizations to adopt a hybrid work model
   - Delivering better business results while ensuring employee wellness

2. Employee wellness
   - employer invest in employee wellness programs
   - 85% of employees, experienced higher levels of burnout (Gartner, 2021)

5. Data literacy
   - Data literacy and data mining skills using the latest technologies and automation

4. Employee Upskilling and Reskilling
   - Business to focus on upskilling and reskilling their existing workforce
   - The shortage of multi-talented professionals willing to change jobs

3. D.E.I (Diversity, equity and inclusion)
   - Organizations penetrate a wider talent marketplace and build a global brand

"Changed the rules of the game — forever"

Global HR Trends : ④ Upskilling & Reskilling

[Deloitte, 2021 Global Human Capital Trends Reports]

"What is the most important item to prepare for possible disruptions in the future?"
Executive Survey Results

72% answered
"Ability for members to take on new roles to reskill and adapt"

72%
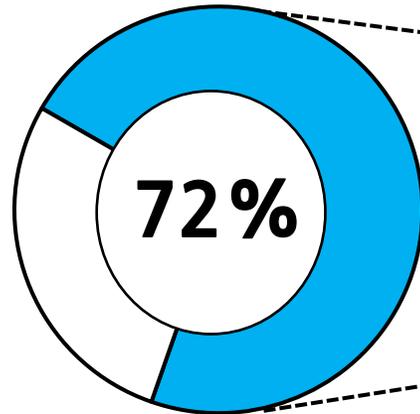
But …
Only 17% answered
"Prepared the ability for disruption"

17%
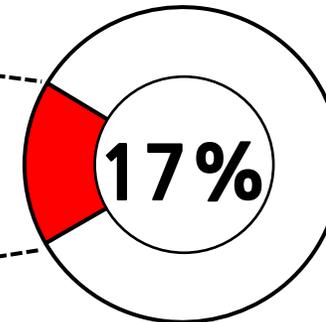
Respondents empathizes the importance of Upskilling and Reskilling
However, many companies do not have specific directions for the future

CONTENTS

Four Stages of intelligence: Huang, Ming-Hui & Ronald Rust(2018)

Intelligences

AI replaces **mechanical**, **analytical**, **intuitive** and **empathetic** jobs

AI replaces **mechanical**, **analytical** and **intuitive** jobs

AI replaces both **mechanical** and **analytical** jobs

AI replaces **mechanical** jobs

stage 4

- tasks that require empathy, emotional labor, or emotional analytics
- learn and adapt empathetically based on experience

stage 3

- tasks that require intuitive, holistic, experiential and contextual interaction, and thinking
- complex thinking professionals that require creative thinking for problem-solving skills

stage 2

- analytical, rule based, systematic complex, decision making (problem solving) tasks
- learn and adapt systematically based on data

stage 1

- simple, repetitive tasks
- learn or adapt at the minimum

Time

Source: Huang, Ming-Hui & Ronald Rust (2018), "Artificial Intelligence in Service," Journal of Service Research, 21, 155-172.

II. Collaboration with AI : OX & TX

Four Stages of intelligence: where JUVIS stands

Intelligences

AI replaces mechanical, analytical, intuitive and empathetic jobs

AI replaces mechanical, analytical and intuitive jobs

AI replaces both mechanical and analytical jobs

AI replaces mechanical jobs

stage 4
- tasks that require empathy, emotional labor, or emotional analytics
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stage 3
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Source: Huang, Ming-Hui & Ronald Rust (2018), "Artificial Intelligence in Service," Journal of Service Research, 21, 155-172.

Best Practice of JUVIS Group

Total Healthcare Company
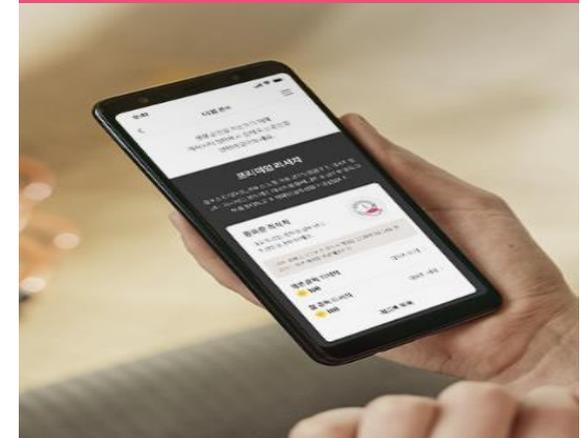

JUVIS Human Consulting

Customized diet solution

JUVIS MALL

Online shopping mall for Health food,
Functional product, Healthcare device

JUVIS AI Consulting

Juvis Diet App, can be managed
through an AI chatbot

Best Practice of JUVIS Group

" **Through tactical Upskilling & Reskilling, JUVIS could Collaborate with AI** "

JUVIS
Professional Diet

Total Healthcare Company

Diet Consulting Service & Customer Counseling Service			
[Level 1] **Job Analysis**	[Level 2] **Job Mapping**	[Level 3] **Job Redesign**	[Level 4] **Job Creation**

Tactical HR Strategy

105,550,299 NZD
(₩86,780,290,000)

48,174,764 NZD
(₩39,603,510,000)

2018 2019 2020 2021

Sales growth rate
35.9% ▲

Four evolutionary steps of HR/D function

Reskilling — Job Creation

• Predicting newly required skill set for emerging jobs and proposing new training programs

Upskilling — Job Redesign

• Redesigning the jobs based on the mapping and distributing the tasks for AI and Human Resource

Job Mapping

• Mapping the job and the system based on the result of the job analysis

Job Analysis

• Analyzing System Reliability & Function by the job analysis

Level 4
Level 3
Level 2
Level 1

" Based on the HR Analytics Maturity Model proposed by Bersin by Deloitte (2013), the four evolutionary steps of HR/D function can be predicted resulting from introducing AI at workplace. "

JUVIS Hybrid (HR+AI) Roadmap

**STEP 1
(2018~)**

*Diet Consulting Service
(Core Business)*

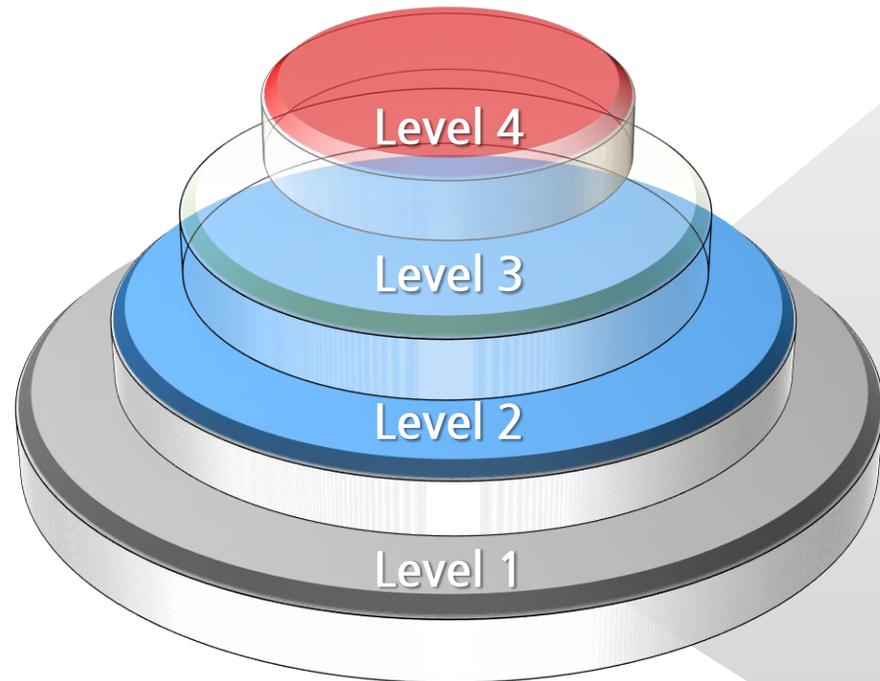- Provide personalized diet plans through AI consultant

**STEP 2
(2021~)**

*Customer Counseling Service
(Job Detail)*

- Develop personalized scenarios by defining the counseling process
- Implement the customized counseling through conversation-based data collection
- Improve quality of the customer experience and the counseling

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| JUVIS Hybrid (HR+AI) Roadmap : STEP1

STEP 2 (2021~) *Customer Counseling Service*

STEP 1 (2018~) *Diet Consulting Service*

- Provide personalized diet plans through AI consultant

- Develop personalized scenarios by defining the counseling process
- Implement the customized counseling through conversation-based data collection
- Improve quality of the customer experience and the counseling

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Upskilling & Reskilling Strategy for DX (1/6)

Level 1 : Job Analysis

- Defining the core competencies for JUVIS employees

JUVIS Core Competencies

- Writing Documents
- Social Intelligence
- Planning and Organizing
- Analyzing Data
- Managing Resources and Time

- Defining the core competencies for the specific departments
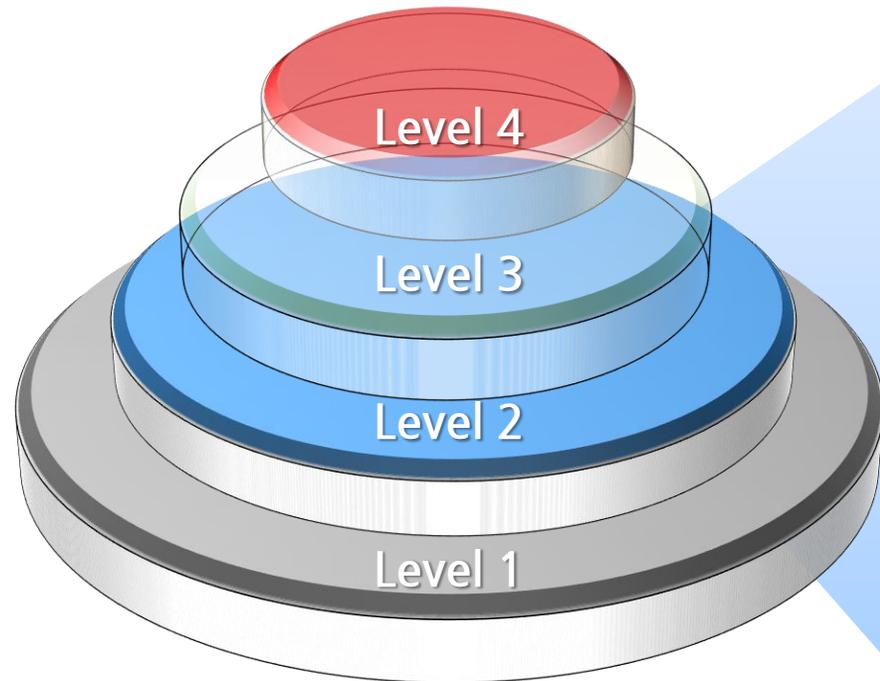
Finances (Job Competencies)
- Managing Funds
- Managing Assets
- Analyzing Financial States, etc.

Marketing / PR
- Proposing New Plans for Advertisements
- Planning New Offline Advertisements
- Proposing New Marketing Plans for franchises
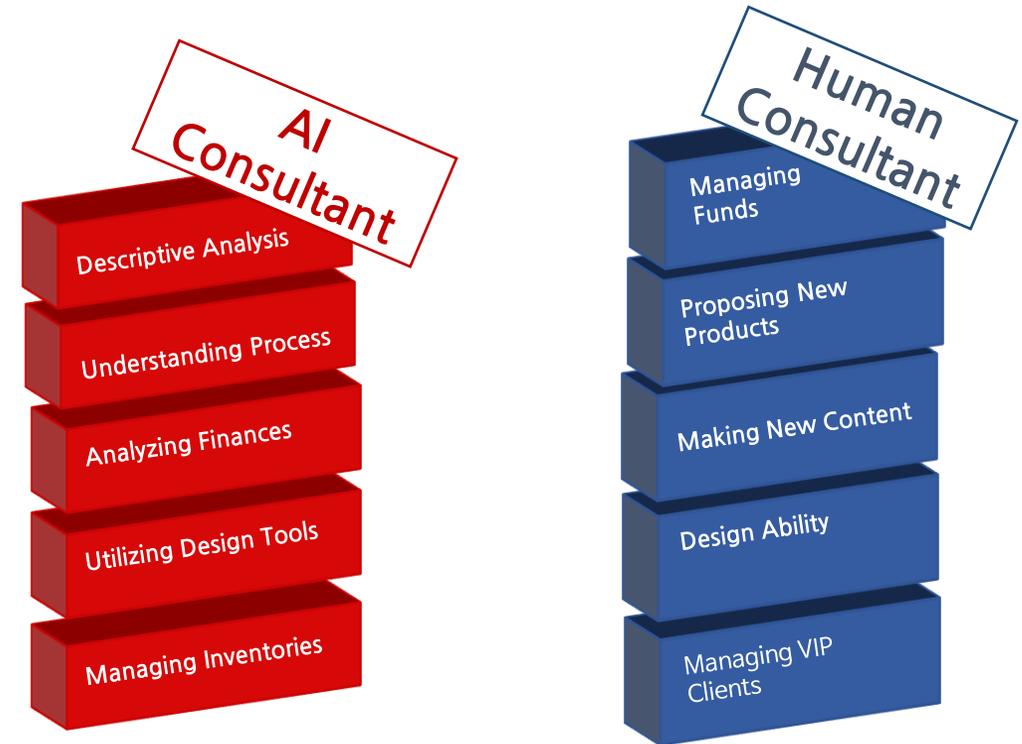- Tactical Planning & Implementation of consultation for unique customer experience.

Level 4
Level 3
Level 2
Level 1

Upskilling & Reskilling Strategy for DX (2/6)

Level 2 : Job Mapping

- Research on the estimated separation of labor between AI and Human consultant

AI Consultant
- Descriptive Analysis
- Understanding Process
- Analyzing Finances
- Utilizing Design Tools
- Managing Inventories

Human Consultant
- Managing Funds
- Proposing New Products
- Making New Content
- Design Ability
- Managing VIP Clients
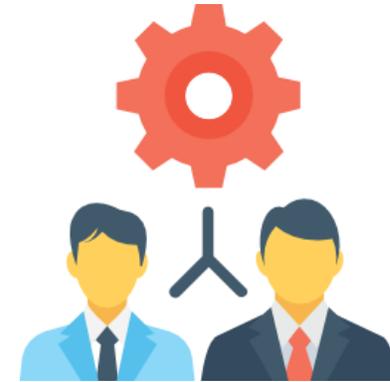
Upskilling & Reskilling Strategy for DX (3/6)
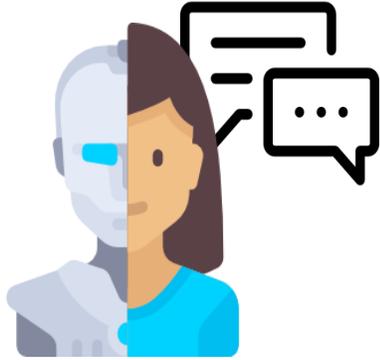
Automating Consulting Service

Juvis has embarked "AI Consultant" which can suggest an individualized weight loss program for customers based on their personal history
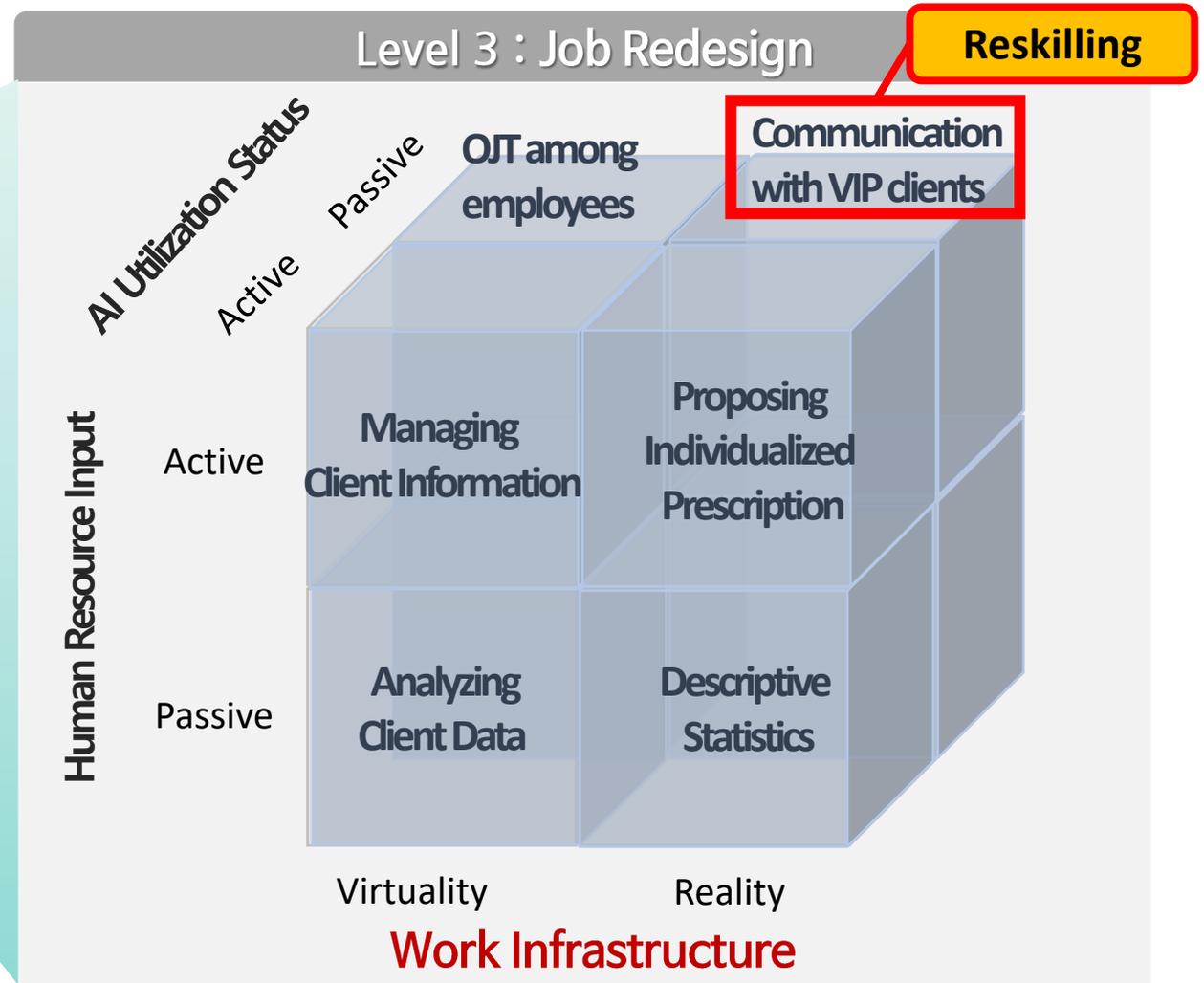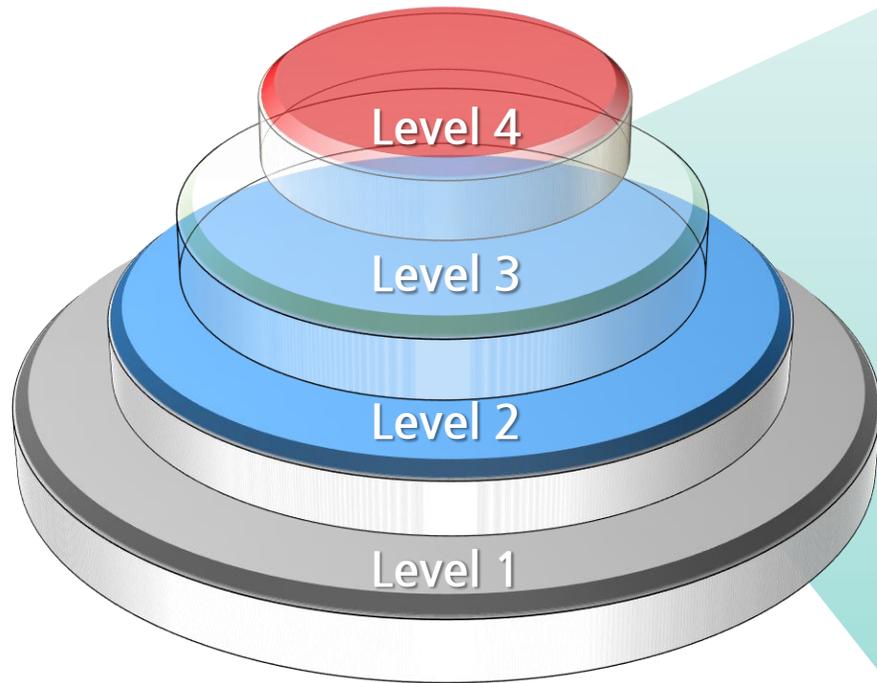
AI & HR Collaboration based on Job Analysis

Job Redesign via Job Analysis

While introducing AI at workplace, JUVIS cooperated with HR specialist to design new jobs based on job analysis

Robots specialized in repetitive tasks for automation

Human Resource that can utilize competencies that only a human-being has

Upskilling & Reskilling Strategy for DX (4/6)

Level 4
Level 3
Level 2
Level 1

Level 3 : Job Redesign

Reskilling

AI Utilization Status

Passive — OJT among employees

Active — Communication with VIP clients

Human Resource Input

Active — Managing Client Information | Proposing Individualized Prescription

Passive — Analyzing Client Data | Descriptive Statistics

Virtuality | Reality

Work Infrastructure

II. Collaboration with AI : OX & TX

Upskilling & Reskilling Strategy for DX (5/6)
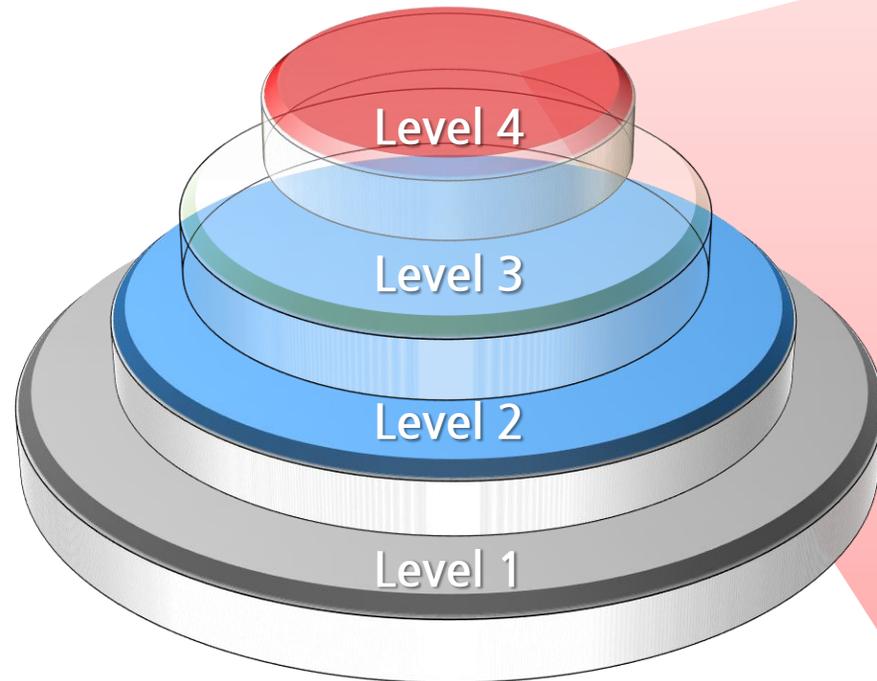
Level 4 : Job Creation

Creating New Business Area

Proposing new areas of business based on the thorough research on interaction between AI and human workforce

Predicting the Required Competencies

Predicting transformed skill set necessary for performing newly divided or designed tasks

Suggesting L&D Strategy

Suggesting more flexible yet innovative L&D strategy for fostering the newly proposed core competencies

Level 4

Level 3

Level 2

Level 1

Upskilling & Reskilling Strategy for DX (6/6)

Before Applying AI

Customer Management
1. Manage reservation schedule of client
2. Send a welcome card to reservation client
3. Confirm client's schedule change
4. Provide consulting visiting client
5. Deal with the VOC of responsible customer
6. Check client's performance
7. Contact unsuccessful client
8. Check the customer's satisfaction

Store Management
1. Clean the inside of the store
2. Check and record the branch consumables
3. Prepare to open the store
4. Check store's facilities
5. Clean the store after the day's care
6. Conduct necessary meetings with staff
7. Discuss the request with the head office
8. Conduct employee consulting training

Revenue Management
1. Promote online marketing
2. Promote offline marketing
3. Inform existing customers of events and benefits
4. Receive customer reviews for marketing
5. Set monthly goals
6. Enter the system when sales occur
7. Enter the system when sales occur

Data Management
1. Fill out client's obesity cause analysis sheet
2. Fill out client's management analysis sheet
3. Send management analysis sheet to client
4. Guide client's data change

Device Management
1. Tidy up the inside of the caring room
2. Set up the measuring instrument
3. Set the client's caring order
4. Upload the movie clip for the client
5. Arrange the devices after caring service

Consulting
1. Analyze the client chart
2. Call the yo-yo prevention client
3. Send a note to the customer for diet guidance
4. Guide the client how to eating out well

After Applying AI

Customer Management
1. Manage reservation schedule of client with AI Program
2. Confirm client's schedule change
3. Provide consulting visiting client
4. Deal with the VOC of responsible customer
5. Check the customer's satisfaction

Store Management
1. Clean the inside of the store
2. Check and record branch consumables
3. Prepare to open the store
4. Check store's facilities
5. Clean the store after the day's care
6. Conduct necessary meetings with staff
7. Discuss the request with the head office
8. Use AI programs for employee training

Revenue Management
1. Promote online marketing
2. Promote online marketing
3. Re-inform existing customers of events and benefits
4. Receive customer reviews for marketing
5. Promote AI 3.0 Program to existing customers
6. Set monthly goals
7. Enter the system when sales occur
8. Enter the system when sales occur

Device Management
1. Tidy up the inside of the caring room
2. Show AI consulting page to client lying on the device
3. Arrange after caring service

AI Program and Data Management
1. Guide how to use the application(chatbot)
2. Deliver application errors to the head office
3. Feedback to unsuccessful customers by App
4. Proceed and notify with the payment through the app
5. Check client's ID to proceed with AI consulting
6. Check the client's AI program utilization

Consulting With AI Program
1. Upload customer quantum analysis via USB
2. Prepare and conduct Slim-By consultation
3. Check and guide how to use chatbot on weekends/holidays
4. Instruct the client to check the AI report.

Increased effectiveness of existing work

Co-work with the AI

Upskilling

II. Collaboration with AI : OX & TX

JUVIS Hybrid (HR+AI) Roadmap : STEP 2

**STEP 1
(2018~)** *Diet Consulting Service*

- Provide personalized diet plans through AI consultant

**STEP 2
(2021~)** *Customer Counseling Service*

- Develop personalized scenarios by defining the counseling process
- Implement the customized counseling through conversation-based data collection
- Improve quality of the customer experience and the counseling
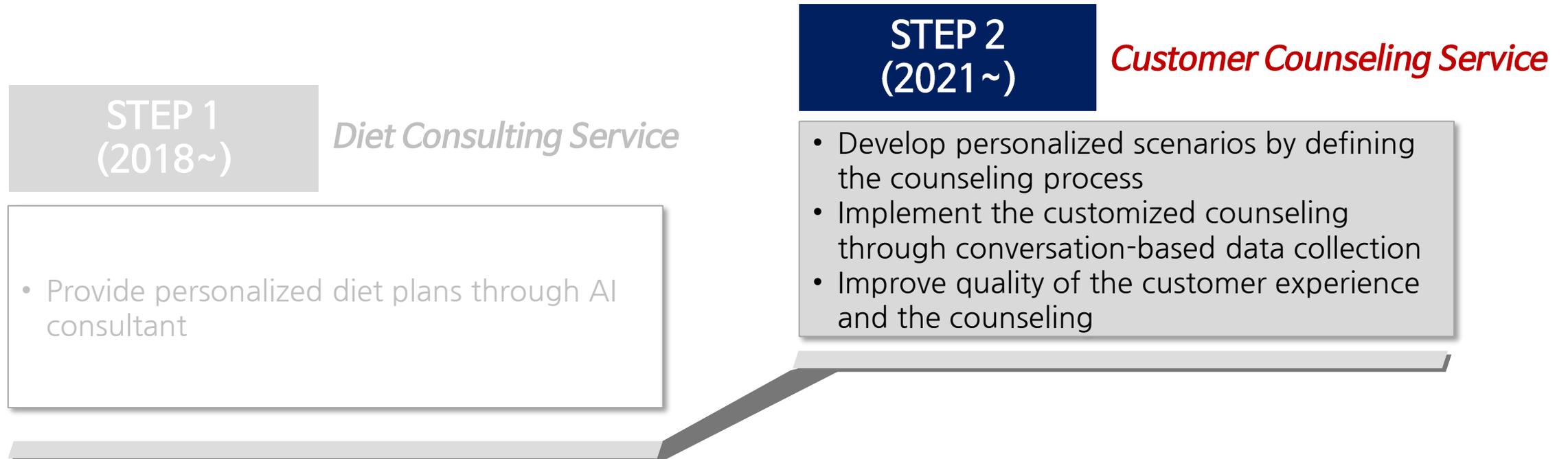
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JUVIS Collaboration Tactic in Marketing/PR

Job Analysis

- Defining the core competencies for JUVIS employees

  JUVIS Core Competencies
  - Writing Documents
  - Social Intelligence
  - Planning and Organizing
  - Analyzing Data
  - Managing Resources and Time

- Defining the core competencies for the specific departments
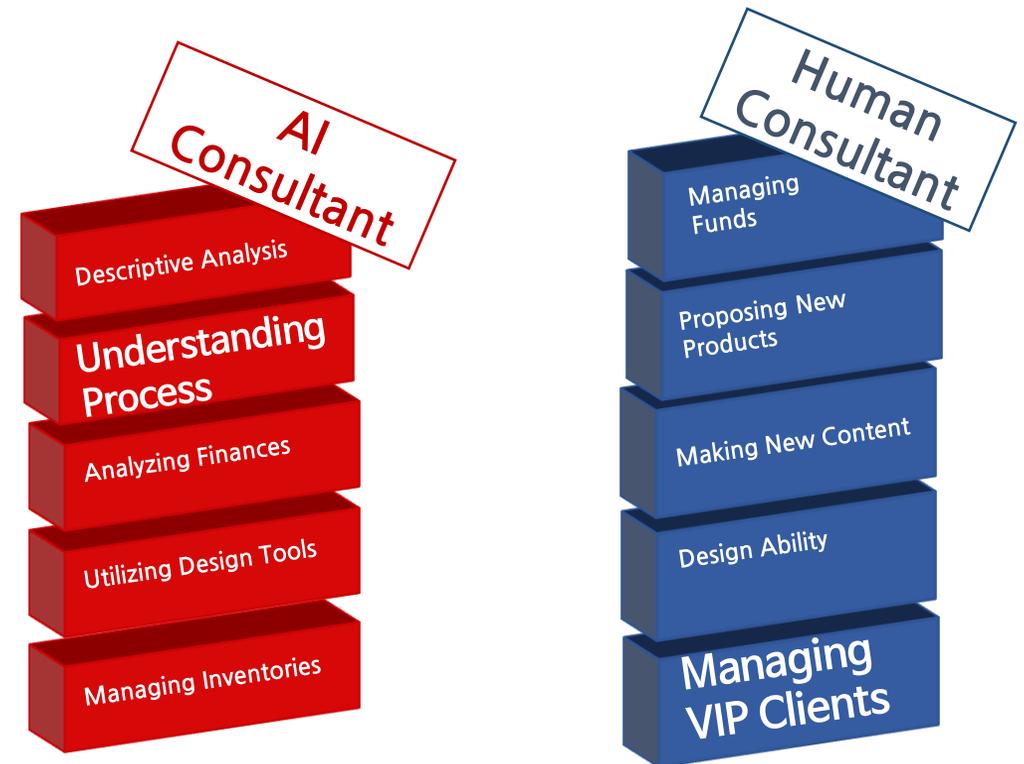
  Finances (Job Competencies)
  - Managing Funds
  - Managing Assets
  - Analyzing Financial States, etc.

  Marketing / PR
  - Proposing New Plans for Advertisements
  - Planning New Offline Advertisements
  - Proposing New Marketing Plans for franchises
  - Tactical Planning & Implementation of consultation for unique customer experience.

Job Mapping

- Research on the estimated separation of labor between AI and Human consultant

AI Consultant
- Descriptive Analysis
- Understanding Process
- Analyzing Finances
- Utilizing Design Tools
- Managing Inventories

Human Consultant
- Managing Funds
- Proposing New Products
- Making New Content
- Design Ability
- Managing VIP Clients

II. Collaboration with AI : OX & TX

Customer Experience Process & Chatbot Collaboration

Chatbot Collaboration area based on Customer Experience

Main Touch Point	1 Information Gathering /Inquiry	2 Consultation Reservation	3 Visit/ Consultation	4 Registration/ Enroll	5 Consulting	6 Management (Program)	7 Management Feedback	8 Exit	9 Aftercare
	1-1 Web page	2-1 Request consultation reservation	3-1 Data Measurement	4-1 Join Membership (Registration)	5-1 Customized Counseling (Setting plans)	6-1 Management Reservation	7-1 Management result analysis	8-1 Managing Progress	9-1 Customer Management
Sub Touch Point	1-2 Messenger App	2-2 Reservation for a visiting customer	3-2 Slim-by (Environment Research)		5-2 Implement first management	6-2 Managing the client (device, diet, exercise)	7-2 Feedback consulting		9-2 Yo-yo effect prevention
		2-3 Mobile reservation	3-3 Counseling based on cause-analysis			6-3 Mental health consulting			
		2-4 App reservation							

Chatbot Consultant | **Human Consultant**

Employee survey on Chatbot Collaboration (3/9)

Employee perception of Chatbot based on pilot test
[Which task should the Chatbot(Human) focus on?, online channel]

✔ **Task for the Chatbot**

1	Introducing JUVIS Diet Brand
2	Collecting data to classify customer type
3	Recommending Customized Program
4	Providing various customized content
5	Informing the process of in-person counseling
6	Attracting to in-person counseling/Reservation
7	Personalizing the counseling based on customer info.
8	Managing to increase reserved customer's visit
9	Re-targeting the customer who didn't reserve

✔ **Task for the Employees**

1	Recommending Customized Program
2	Personalizing the counseling based on customer info.
3	Managing to increase reserved customer's visit
4	Re-targeting the customer who didn't reserve
5	Attracting to in-person counseling/Reservation
6	Collecting data to classify customer type
7	Introducing JUVIS Diet Brand
8	Providing various customized content
9	Informing the process of in-person counseling

- **The Chatbot performs mechanical & analytical tasks while the employee handles more intuitive & empathetic ones**

Source: Dr. Chan Lee's Research Team, Employee survey on Chatbot Collaboration(2021. 08. 10 ~ 2021. 08. 12)

II. Collaboration with AI : OX & TX

Employee survey on Chatbot Collaboration (4/9)

[Which task should the Chatbot(Human) focus on?, in-person counseling]

✔ Task for the Chatbot

1	Introducing JUVIS Diet Brand
2	Collecting data to classify customer type
3	Informing the process of in-person counseling
4	Recommending Customized Program
5	Informing detailed events & benefits
6	Attracting to in-person counseling/Reservation
7	Personalizing the counseling based on customer info.

✔ Task for the Employees

1	Personalizing the counseling based on customer info.
2	Recommending Customized Program
3	Introducing JUVIS Diet Brand
4	Collecting data to classify customer type
5	Attracting to in-person counseling/Reservation
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- The Chatbot performs mechanical & analytical tasks while the employee handles more intuitive & empathetic ones
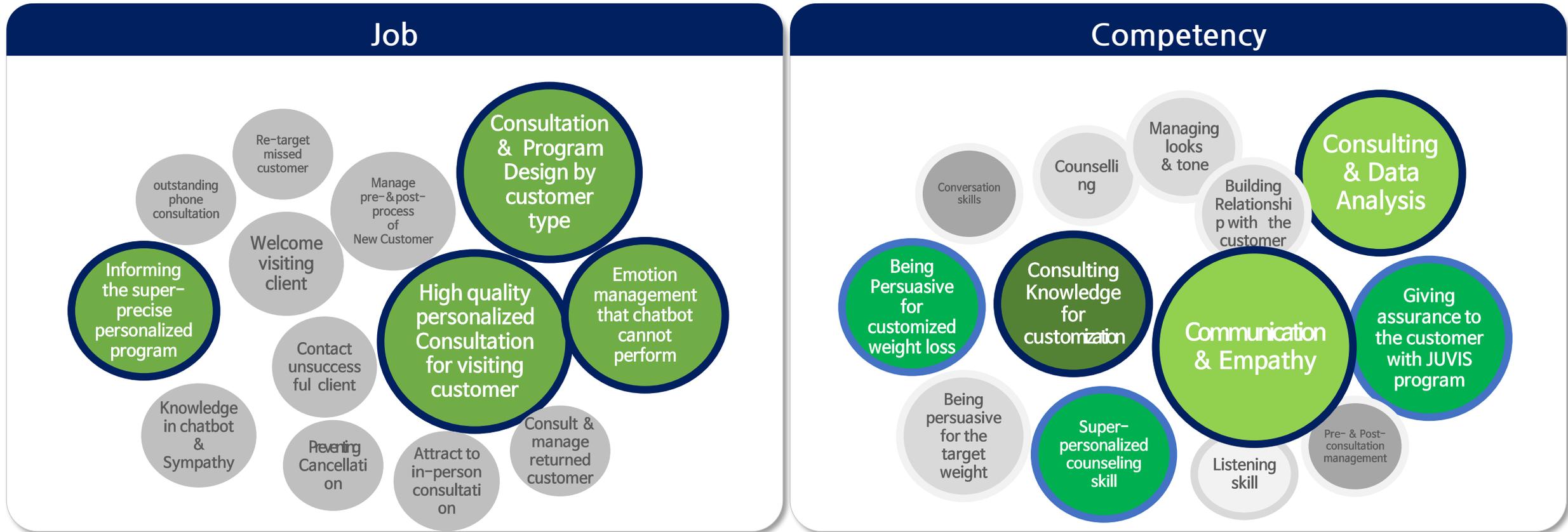
Source: Dr. Chan Lee's Research Team, Employee survey on Chatbot Collaboration(2021. 08. 10 ~ 2021. 08. 12)

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Employee survey on Chatbot Collaboration (8/9)

Q. If Chatbot execute a part of the existing tasks,
 What job and competency should an employee focus on Upskilling?
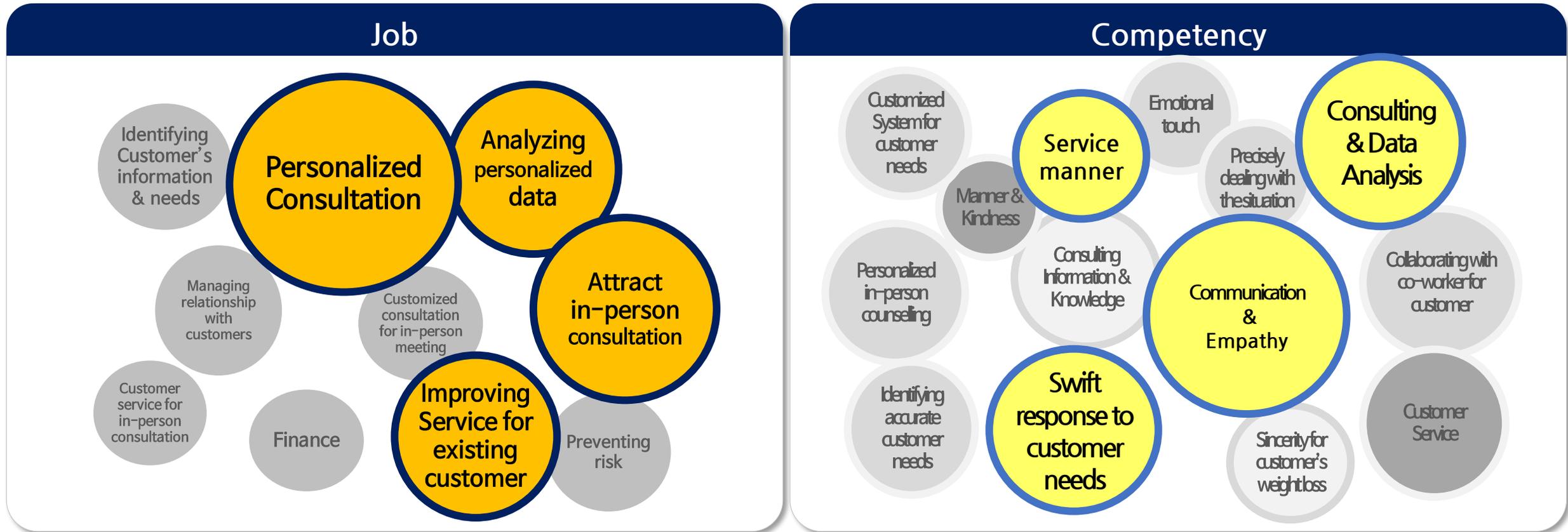
Employee survey on Chatbot Collaboration (9/9)

Q. If Chatbot execute a part of the existing tasks,
   What job and competency should an employee focus on Reskilling?

CONTENTS

**In DX era,
Human should collaborate with AI
through tactical Upskilling & Reskilling**

DX (Digital Transformation)

Talent
Transformation **TX**

Upskilling	Reskilling

Organization
Transformation **OX**

AI & HR
Collaboration

Helping the world's HRD excellence   Global No. 1   HRD research Team

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