Support for AI / sensor technology promotion by "Simple AI"

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Simple AI Overview 1



What is Simple AI

Functionalization of miscellaneous processing required for sensor · Al usage into units of "objectives", realization that "can be used with a target perspective"

Conventional **Initialize Formatti** Person **Capture Initialize** Result the ΑI ng informat Al to be processi capturin sensor information informat to be ion used ng ion used Number of person <u>Framework</u> Sex **Capture** Age person **Emotion** information

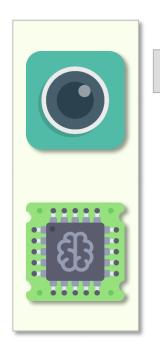
- We will make it functional by unit of purpose (result) I want to make and basically use it as it is
- Dare to use the existing AI service etc. internally to secure the possibility of implementation strongly
- Sensitive information such as images is used only in memory as much as possible so that it is not stored.

Simple AI Overview 2



Function image inside the framework

Allow multiple devices / AI services to be cross-cut without developing dedicated software



Sensor control

Al service control

Framework management

Sensor control

- Keep parameters necessary for control as standard values and make them available without setting
- Combine the devices to be used in units of purpose(cameras, microphones, etc.) instead of equipment, and control them all together.
- The processing overhead (overlapping identical processing (continuous opening of the camera, etc.)) is absorbed by the framework. (Realized by pool connection etc. of sensor connection)

Al service control

- Keep parameters necessary for control as standard values and make them available without setting
- The AI services of each vendor are grouped in a target unit and controlled all together (vendor independent)
- The account information of the AI service is not held internally as much as possible by utilizing the API key · OAuth etc. (token).

Framework management

- In order to make it possible to use the output information as it is, the information name etc (table name in the database, item name etc.) has translation data to be localized automatically (also like a language pack of CMS such as WordPress)....
- Generate general-purpose processes of sensors and AI services as libraries, making them reusable as a whole
- As much as possible, sensors are controlled with APIs that do not depend on hardware, and the processing data format
 enhances external usability with JSON.

Person information

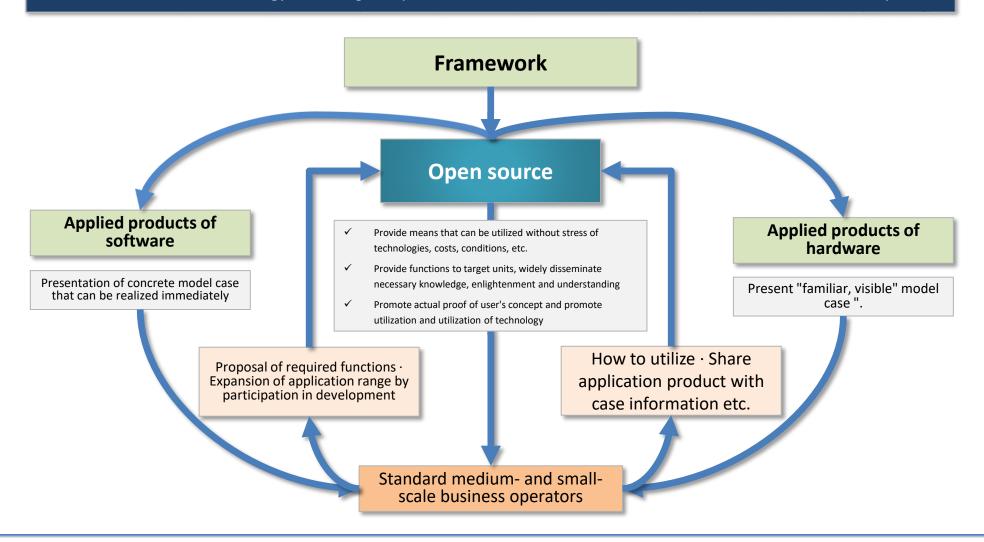
- ✓ Number of person
- ✓ Sex
- Age
- ✓ Emotion

Simple Al Purpose 1



Realization process of AI / sensor technology promotion by framework

Generalize AI · sensor technology centering on open source of framework and make "use / utilization" "commonplace"



Simple Al Purpose 2



Based on the performance and connections with many small- and medium-sized enterprises in the Kansai area, we will realize AI / sensor technology promotion support



【Performance】

Based on the results of system planning, development, and technical support to business operators and software development companies, mainly manufacturing industry,

【Connection】

Meaning for utilizing IoT, big data, and AI Clarify "necessary objectives" from the long-term connection with the furthest business operator,

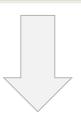
【Realization】

Based on our philosophy of "To simplify IT", regardless of technology, realize the purpose regardless of reason.



AI · Promotion of sensor technology

Promote knowledge / awareness / promotion of technology





Share necessary purpose, reason, condition

Operators mainly in the manufacturing industry

Developers of software etc.

That means we can do this kind of thing



Repeat technology promotion



It seems convenient, but it does not fit easily, I do not know well

I do not know what the sensor is like ... or what the service is like Besides, it is troublesome.

Conclusion. I do not know well, so I do not need it. Anyway, does it cost money?

Well then, just talk about the purpose you want to do.

Complex things will be stuffed all over and hidden from view.

Since it is open to the public, if you just use it as it is, it is free



Overview of application product



Overview of Software / Hardware Framework Application Products

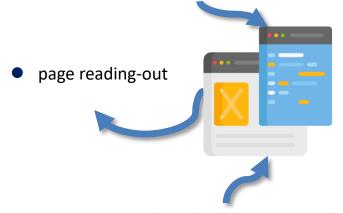
Software application products

Al · sensor plug-in

Just by incorporating AI into the homepage as it is.

To the existing homepage, add functions such as page reading-out, page switching by voice command, collection of evaluation information by image recognition.

 Collect content evaluation from sex, age, facial expression



page switching by voice command

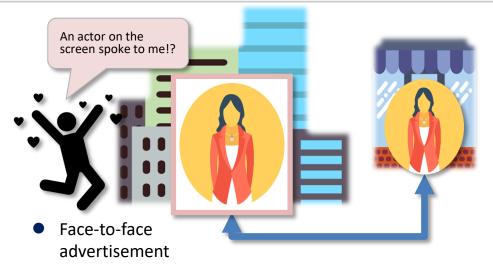
Hardware application products

Theatricalized digital signage

Change commercial facilities to interactive media

Interact with the studio with signage, camera, various sensors, and make the commercial facilities a theater.

Basically, since it is a one-to-one communication, both the studio side and the commercial facility side are less burdened with communication and distribution facilities.



- Face-to-face selling
- New Media Expansion

^{*} Preparing for acquiring patents for business models, etc. · Assuming business development by license provision etc.

Software application product supplement 1



■ AI · sensor plug-in image

Collect content evaluation from sex, age, facial expression

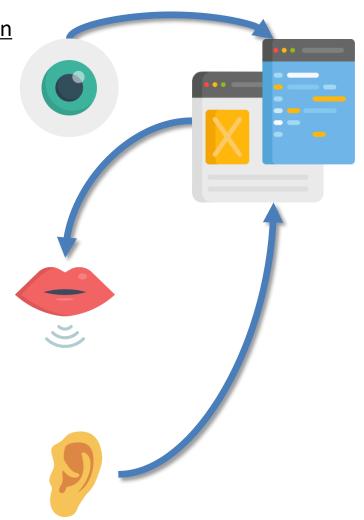
- When page transition is made, transition is made by embedding recognition information such as sex, age, facial expression, etc. of the person seeing the page as a referrer (supposed to be compatible with conventional page stay information).
- Use it as a new evaluation criterion of contents.

page reading-out

- Read the meta tag as it is at page transition.
- If reading tag is defined, it gives priority. (It is better not to read out the contents displayed on the page but to prepare separate contents to be transmitted in words)

page switching by voice command

 Read the page DOM or public site map, process the wordized letters and word titles from speech recognition with AI and move to the nearest page.



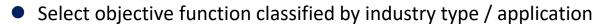
Software application product supplement 2



Plug-in distribution image

Purpose function selection

Present a recommendation



- View required hardware requirements
- Present recommended hardware according to purpose function



Al service selection

Present a recommendation



Plug-in Download

Presentation of sample code

- Selection of AI service that can be used for purpose function ·
 Setting of authentication information
- When the user has not registered the AI service, a guide and a link for prompting registration are displayed.
- Present recommended hardware according to purpose function
- Automatically generate plug-in according to registered contents, download
- Present sample code for embedded
- Display of usage image

Hardware application products 1



Image using a theatricalized digital signage

Face-to-face advertisement

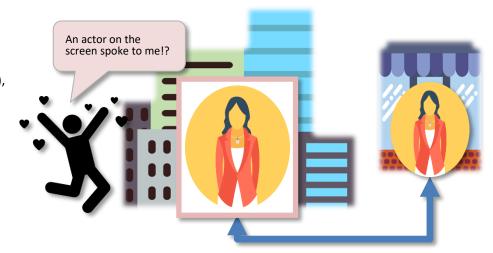
- One-to-N face-to-face advertisement through digital signage. A studio product planning staff can listen directly to raw voices. It can be utilized for customer participation type product development etc.
- Since it is via the online, it is easy and it is a commercial facility (public place), so you can listen to opinions that kept a certain degree of courtesy (close to a street interview).
- Real-time data collection of customer attraction results with camera · Al · sensor is possible

Face-to-face selling

- You can sell directly from the QR displayed on the digital signage, you can thank for confirmation / purchase of the person who purchased it.
- Cooperation with marketing activities after sales using QR embedded links
- In the terminal of the purchased person, the merchandise / movie of the actor who is the product / related product / sales manager is displayed preferentially at each service site etc.

New Media Expansion

- Use digital signage installed on multiple pillars of the facility and display members of the actor group respectively. (Sometimes members change)
- Do not produce distributed content, but live broadcast.
- In this era when there are many people who have the desire to express something, we will provide infinitely extendable media other than the Internet.



- As media, it is important to embed the media at the time of staying at a commercial facility when going out, rather than competing for the time to use the mobile / personal computer (personal free time).
- Promote revitalization of local commercial facilities by mediaization.
- ✓ It is also aimed to differently create advertisement space that broadcasters / advertising agencies etc compete with the Internet.

Hardware application products 2



Theaterized digital signage application image

Theatricalization digital signage · hardware plug-in

Equipment image

- Hardware plug-in which makes bi-directional existing digital signage by connecting.
- Hardware excluding smartphone display, touch panel, battery, can use smartphone level cameras and various sensors.
- Element technology is made smartphone base to facilitate procurement and cost reduction.

<u>Usage image</u>

- You can switch and use according to the purpose, such as digital signage in the day and security system at night. It is also possible to safely warn of suspicious individuals found through signage
- The connection to the network can be utilized as a Wi-Fi spot by a designing function, along with a mobile communication network or a network of existing digital signage

Other deployment image

- By displaying the real camera image and the composite image of the studio person (real-time synthesis of the marquee part of the studio) in the signboard type digital signage, realize a digital signage that a person in a remote place seems to be standing sideways. Enable closer communication.
- Distribute air temperature, location, vibration etc. information to public institutions and information sites and make external use (open localization led by local government).



On the approach to Al 1



Al project concept

In order to actually use AI for business / business, a plurality of cooperative processes is necessary. Our company realizes effective project control by doing ground design by person in charge who has overall knowledge.

Al production

- ✓ Environment
- ✓ Learning model design (not required each time)
- ✓ Definition of learning data (not required every time)
- ✓ Preparation of learning data (reusable due to padding etc.)
- ✓ Learning implementation
- Learning result analysis
 - Learning result evaluation

Repeat to improve accuracy.

Construction of IoT (equipment)

IoT such as sensors cooperating with AI Design, development and construction of software and hardware of embedded equipment

SI (system) development

Design and development of open \cdot Web \cdot office computer system to work with AI

On the approach to AI 2



We are planning, designing and developing frameworks that utilize AI.













- Framework aimed at simplifying AI usage
- Sensor and general purpose AI service available with 1 command
- Currently planning, designing and developing website AI plug-in using trial version

Al sensor

- A framework aimed at substituting altitude sensors with general purpose hardware such as cameras + Al
- "Al sensor" as a standalone, aiming for sensor processing, Al processing, control target hardware cooperation
- Currently planning and designing trial version