R&D Initiatives

The INTAGE Group R&D Center is a virtual organization without a fixed form. Under the catchphrase "Enjoy Innovation," those who have an interest in R&D or want to take on challenges in new fields gather freely from across the Group to conduct wide-ranging research in the quest to create new technologies. In this feature, the General Manager of the INTAGE Group R&D Center provides an overview of the center's activities, and two center staff explain their respective fields and the research they are involved in.

Working to Resolve Social Issues

Today, consumers' daily lives and the activities of corporations are facing major changes due to advances in digitalization, automation and AI, utilization of big data, and other factors. For companies to respond to these changes requires not just an extension of existing businesses but also the creation of new value.

Combining data from throughout the INTAGE Group with new technologies and accumulated insights about consumers, the INTAGE Group R&D Center conducts research together with various external partners to resolve not only the marketing problems of companies and organizations, but social issues as well. Our research interests can be broadly divided into two areas: Life Insights and Data Science (see figure at right). In the area of Life Insights, we pursue the study of the mind in terms of perception, cognition, thinking and emotion related to how consumers see, consider and judge things. We also promote the study of how consumers behave, and their decision-making processes in their daily lives. In the area of Data Science, we promote research in data analysis and statistical modeling to generate better value in big data analytics, including techniques for integration, estimation and prediction. We are also progressing with research into the optimal design of environments, indices and operations that utilize data.
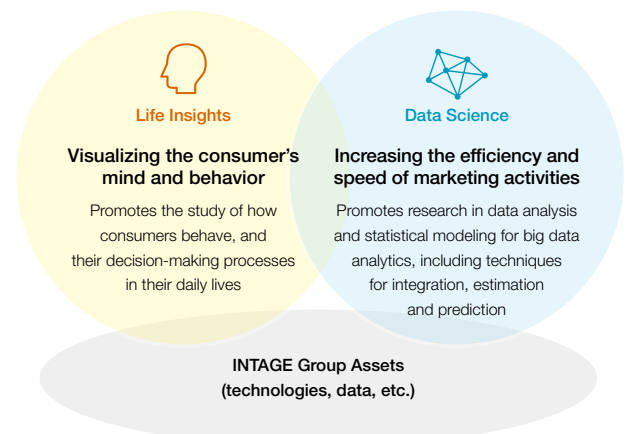
Links between the results of this research and our current businesses are beginning to materialize, and I am confident that they will lead to the creation of a prosperous society of limitless possibilities.

Takahiro Nagasaki

General Manager, INTAGE Group R&D Center
General Manager, Development Group, INTAGE Inc.

Research Areas: Toward a More Refined Understanding of Consumer Behavior

Life Insights

Visualizing the consumer's mind and behavior

Promotes the study of how consumers behave, and their decision-making processes in their daily lives

Data Science

Increasing the efficiency and speed of marketing activities

Promotes research in data analysis and statistical modeling for big data analytics, including techniques for integration, estimation and prediction

INTAGE Group Assets (technologies, data, etc.)

Mr. J.T.

Digital Marketing Department, Life Log Data Business Group, INTAGE Inc.
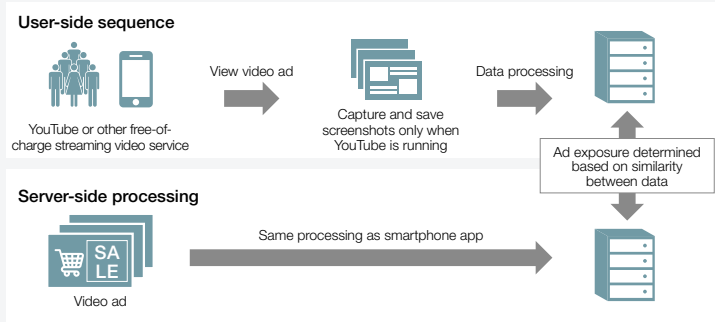
Measuring the Effectiveness of New Advertisements

Traditionally, we have used cookies[1] to track exposure to corporate advertisements to measure their effectiveness, but rules on cookie use have gradually become more stringent out of privacy concerns. Meanwhile, needs in digital advertising are increasing, especially in video advertising, and needs for measuring ad effectiveness are on the rise as well. As an R&D Center project in 2017, we attempted to track ad exposure through a method that does not rely on cookies. Specifically, we had individual panelists install a new app that automatically saves screenshots only when using video services. This allows for extraction and comparison of data between screenshots and original video ads in order to track ad exposure (see figure at left). User privacy is protected by shrinking the images considerably during this process. I would like to develop this technology as a way to autonomously track ad exposure – with panelists' permission – without relying on cookies.

1. Mechanism by which website operators temporarily write and store data on a visitor's computer via the web browser.

Overview of Methodology

User-side sequence

YouTube or other free-of-charge streaming video service → View video ad → Capture and save screenshots only when YouTube is running → Data processing → Ad exposure determined based on similarity between data

Server-side processing
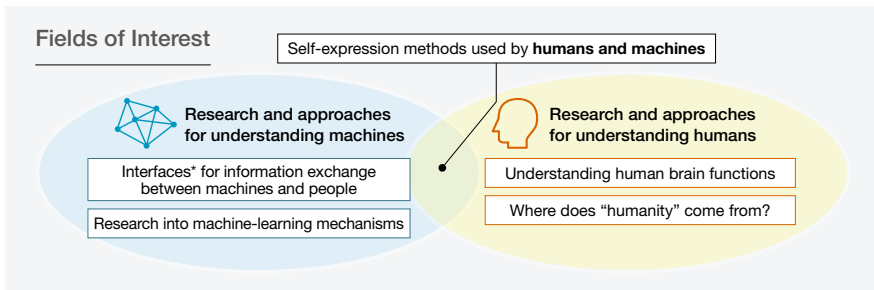
Video ad → Same processing as smartphone app

Deepening Understanding of Machines and Humans

Over the past few years, the use of AI to automate various tasks is a topic seen increasingly in the media. To hear it explained gives the impression that processing is carried out smoothly and automatically, but in reality, a massive amount of human labor goes into creating annotations, i.e. correctly preparing data that enables machine learning. Of course, the burden will become smaller as this technology advances, and improvements in accumulated data or collection methods will create an environment where machine learning is more efficient.

Under these circumstances, we must ask ourselves, "How should we integrate intelligent machines into our lives in a way that preserves our humanity?" For that purpose, the INTAGE Group R&D Center wants to deepen understanding of both machines and human beings (see figure at right).

Mr. A.T.

Advanced Technology Department Development Group, INTAGE Inc.

Fields of Interest

Self-expression methods used by **humans and machines**

Research and approaches for understanding machines
- Interfaces* for information exchange between machines and people
- Research into machine-learning mechanisms

Research and approaches for understanding humans
- Understanding human brain functions
- Where does "humanity" come from?

* A common area where two different entities can meet and interact.