

# Bringing Japanese Manga to the World

Orange's AI-Powered Localization Tool Specifically Designed for Manga



## ■Interview

Orange Inc.

CEO: Shoko Ugaki (left)

VP of emaqi/Studio: Rei Kuroda (right)

Interviewed by Tomoko Okazaki

Manga is a subculture that represents Japan, boasting high popularity overseas as well. However, translating manga is highly challenging, and the localization process is complex. As a result, only a limited number of popular works have been translated and published internationally.

Amidst these circumstances, a new trend has emerged: the introduction of AI into the localization process to publish international manga on a large scale. We interviewed Orange Inc., a company with an in-house localization team dedicated to tackling manga localization using their proprietary tools.

## The Current State of Manga Translation

### ◆A Movement in the Publishing Industry to Translate Manga on a Large Scale

Japanese manga popularity extends beyond Japan's borders, reaching worldwide audiences. Particularly during the COVID-19 pandemic, when movement was restricted in 2020-2021, manga sales skyrocketed in English-speaking countries such as the United States and the United Kingdom. In the U.S., sales volume jumped from 9.68 million copies in 2020 to 25.2 million copies in 2021, a 160% increase (according to Circana).

While the global success of manga, a pillar of Japan's content industry, is something to be celebrated, it has also led to the proliferation of pirated versions, infringing on creator

copyright. The circulation of pirated versions is partly attributed to the lack of officially translated manga, highlighting the urgent need for these translated publications to protect the content industry.

Amidst this backdrop, a startup company has been gaining attention. Orange Inc., founded in April 2021 by Shoko Ugaki, who previously worked in game development, was established with the passionate goal of "Creating a world where everyone enjoys manga."

In recent years, Japanese games have struggled in the global market. Witnessing this from the inside, Ugaki pondered, "What field can compete internationally?" His answer was "manga."

"When I checked the North American sales rankings on Google Play, I found that 8 out of the top 10 in the manga app category were webtoons from Korea or China. Despite Japanese manga being incredibly appealing content, the lack of a comprehensive app offering manga from multiple publishers has led to a complete defeat by webtoons in the app market. Feeling this was a waste, I wanted to create a platform where people overseas could easily read manga."

An avid manga fan himself, Ugaki researched the manga localization process and learned about the various work stages, including translation. Believing that AI could automate much of this, he began developing a manga-specific localization support tool. After two years of creating a prototype, he started approaching publishers for practical implementation in 2023. In May 2024, the company raised 2.9 billion yen from major publishers and venture capital firms, making headlines.

"I sense a movement towards using localization tools to translate and publish manga on a large scale. There are people who support our mission of delivering manga to the world. We want to spread manga globally over the next 10 to 20 years."

The company's business extends beyond manga localization. They contract with publishers for manga localization rights and handle content distribution through their digital manga store. This integrated approach sets them apart from translation or localization companies. In other words, they developed a manga-specific localization support tool to efficiently localize manga for distribution through digital manga stores.

According to the company, there are currently 13,000 to 14,000 manga translated into English, representing only about 2% of manga circulating in Japan. Their digital manga store aims to gradually expand its content, offering English translations of manga from various publishers.

"If we can deliver translations in English and other major languages, we believe billions of people could read manga. We see enormous potential there. As our company's purpose is to help deliver Japanese manga worldwide, we eventually want to expand into multiple languages."

## **Orange's Objectives**

### **◆Developing an In-house AI-powered Manga-specific Localization Tool**

"Studio" is a manga localization support tool independently developed by Orange. Manga localization involves various processes such as image retouching, translation, refinement, text layout, and proofreading. This AI-powered tool is particularly effective in image retouching, base translation, and proofreading.

The localization process using the "Studio" system works as follows: It reads the artwork and text from JPEG images of manga, uses AI to retouch by whitening out unclear areas or Japanese text unnecessary for the English version, and complements the background in these areas. Simultaneously, AI provides a base translation of the Japanese text into English. The system displays old and new images side by side, allowing translators to refine the AI-suggested base translation while comparing the Japanese and English versions. Translators can input text directly into text boxes, eliminating the need for separate file management. AI also conveniently suggests multiple translation options for onomatopoeia. After the translation is finalized through target language professionals, the text font is decided, and the layout completed.

The key feature is the effective use of AI not just in translation but throughout the localization process. Manga dialogues and sound effects often overlap with images, making image modification an essential part of localization. This task is labor-intensive when done manually, but the tool quickly produces natural-looking modified images.

Regarding "translation," on the other hand, the interpretation of Japanese remains challenging and still requires human translation, since the language often omits subjects and uses ambiguous expressions. On this point, Rei Kuroda explains:

"I don't think there will ever be a day when we can entirely rely on AI for manga translation. There are mistranslations by AI, and subtle nuances are better reflected in translations with a human touch. In the localization process, AI can handle what it's good at, and humans can focus on what humans are good at. By blending AI and human expertise, we aim to improve efficiency while maintaining manga quality in localization. That's our goal."

## **The Process of Manga Translation into English**

### **◆Shortening the Localization Process to Allocate More Time for Translation**

Currently, the company has about 10-20 registered translators and target language professionals. Initially, a native Japanese language professional translates the text into English, referencing the AI-generated base translation. Subsequently, a native English language professional reviews the translation from a native perspective. Internally, one director is assigned per title, with the director, translator, and native target language professional forming a three-person team responsible for the translation process. Works for translator assignments are based on their areas of expertise, interests, and preferences.

A manga typically contains around 15,000 characters per volume. Conventionally, the localization of one volume, including image modifications, takes at least five days. However,

using the company's "Studio" tool, this process can be completed in just 1-2 days. It's important to note that this timeframe isn't a quota, but rather a natural reduction in time achieved through appropriate use of AI.

"For example, by allocating the four days saved through AI utilization to refinement, we can polish the translation and create a more natural, fitting translation for the title," explains Kuroda. "The exchange of ideas and repeated refinement among the three team members definitely improves the quality of the translated version. This is one of the major benefits of incorporating AI into the localization process."

## **Publisher Reactions and Future Prospects**

### **◆As the Market Expands, Demand for Manga Translation Increases**

The company established a U.S. corporation in March 2024 and has been preparing to launch its digital manga store, "emaqi." In the near future, "emaqi" will debut with approximately 700 titles and 6,000 volumes, combining previously translated works with newly translated ones by the company. This digital manga store plans to offer a wide range of works, from major publishers to small and medium-sized publishers, and even works by individual manga artists who publish on social media.

"Publishers and original authors are positive about large-scale manga translation," Ugaki observes. "When we spoke with representatives from contracted publishers and original authors, they were thrilled that their works would reach English-speaking readers. We feel our efforts are being received very positively."

The company aims to use "Studio" to reduce localization time and increase the number of translated manga publications by 10 to 100 times the current amount. After establishing "emaqi" in North America, they plan to expand their digital manga store business to other English-speaking regions such as the UK and Australia, as well as areas with many English speakers like the Philippines. In the medium term, they also want to tackle manga translation in major languages like French, Spanish, and Chinese.

As the translated manga market expands, the demand for manga translation is expected to increase. While AI discussions often raise concerns about human job displacement, both Ugaki and Kuroda assert that "opportunities for translators will actually increase."

"The human touch is essential for translating complex content like manga. Even as we collaborate with AI to localize manga on a large scale, our translation process will continue to rely on translators. We regularly recruit translators and aim to deliver Japanese manga to the world through collaboration between our in-house developed tools and professional translators," says Ugaki.

Kuroda adds, "We believe that as the overall market expands, the demand for translation will also increase. There will be more opportunities for translators, especially for works that require more nuanced expressions."

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## Message from Orange's Translation Team Working Together on the New Tool Platform

The translation of manga handled by Orange involves a three-person team for each work, consisting of a translator, director, and target language professional. The translator is responsible for translating all text within the work, including English captions, synopses, dialogues, onomatopoeia, and publication information about the creator. We use the "Studio" tool developed by Orange for translation work, which allows us to work directly on the text in speech bubbles on JPEG images, making the process efficient and user-friendly.

While translations will vary depending on the piece, AI-generated content generally requires comprehensive human editing. Translation typically involves the challenge of creating text from scratch, but AI will make this first process more efficient, making the entire translation project more manageable. Furthermore, while translation is generally a solitary task, the ability to collaborate with other translators on the tool platform coupled with AI to refine translations through brainstorming greatly enhances our efficiency and productivity.

Reading comprehension and an understanding of written characters are crucial qualities in manga translation. Japanese manga is gaining popularity, partly due to the influence of anime, and we hope this trend continues to grow. We would be delighted if many masterpieces could be enjoyed in multiple languages, not just English.

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### Collaboration Between Tools and Translators: Efficient Manga Translation



User interface (UI) of the translation tool "Studio". The Japanese and English versions of the images are displayed side by side. Users can work directly on the text in the manga speech bubbles on the image.



Scenes from the largest anime event "ANIME EXPO 2024" held in Los Angeles in July. Many people gathered at Orange's booth for their digital manga store "emaqi".



A display of works translated by Orange.

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