MANGAKI

LA RECOMMANDATION FRANCOPHONE D'ANIME ET MANGA

Mangaki is a manga/anime recommendation website: `https://mangaki.fr`.

Everyone regularly ask themselves what movie, series or book they should watch next, according to their tastes. Mangaki wants to innovate access to Japanese culture by providing a unique user experience.

## Innovation: Adaptive Testing for Personalized Recommendations

In a typical recommendation website, a user rates a few anime (*I like / I don't like / I don't know*) and the system provides suggestions of new works they might like. But newcomers usually have to rate **a lot** of items before they get satisfying recommendations.

What distinguishes Mangaki from other recommender systems is a Tinder-like **adaptive test** for newcomers, asking the user « ***Did you like these works?*** ». This welcome test enables Mangaki's algorithm to automatically select works that will bring the most information about the user's tastes. This makes it possible to provide relevant recommendations faster.

Attractive features

- the welcome adaptive testing, relying on state-of-the-art algorithms from recent research ;
- the core can be adapted to other databases (books, food, video games, etc.)
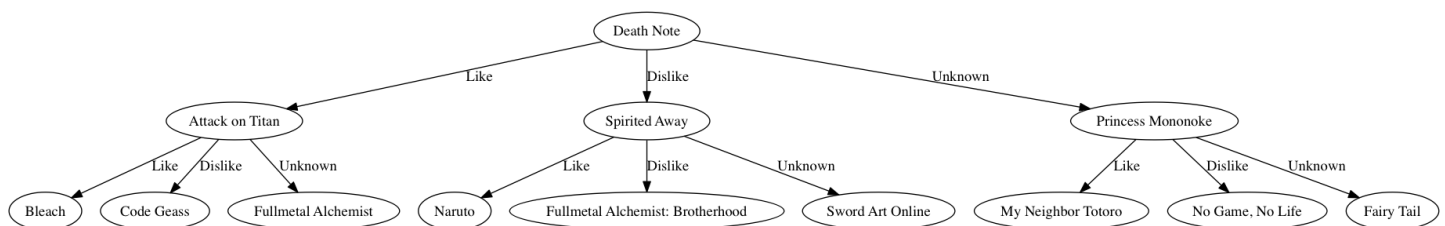
Awards

- **1ˢᵗ prize Enterprise**, Student Demo Cup, October 2015
- **1ˢᵗ prize**, Japanese Cultural Institute in Paris (国際交流基金), March 2016

Presentations

Academia

- iSWAG Symposium, Deauville, France, June 10, 2016
- Anime Expo Studies Symposium, **Los Angeles**, US, April 2, 2017
- École polytechnique, Palaiseau, France, March 7, 2017
- **Kyoto University**, Japan, August 31, 2017
- MANPU 2017, **Kyoto Manga Museum**, Japan, November 10, 2017

Industry

- Paris Machine Learning Meetup, May 11, 2016
- RecSysFR, Deezer France, June 22, 2016
- **Hacker News Kansai**, Kobe, Japan, January 27, 2017
- Pico Pico Cafe, **Kichijōji**, Tokyo, Japan, May 20, 2017
- Paris Machine Learning Meetup, September 13, 2017

Presentation of Mangaki at Deezer France for the Recommender Systems Meetup
(including engineers at Rakuten PriceMinister, Criteo)

Our Vision

1. We want to help people discover pearls of the Japanese culture.

Today, only 10 series are making up to 50% of manga market, while other masterpieces remain unknown. We would like to help those unknown works to break through.

2. We believe people should not only be seen as customers.
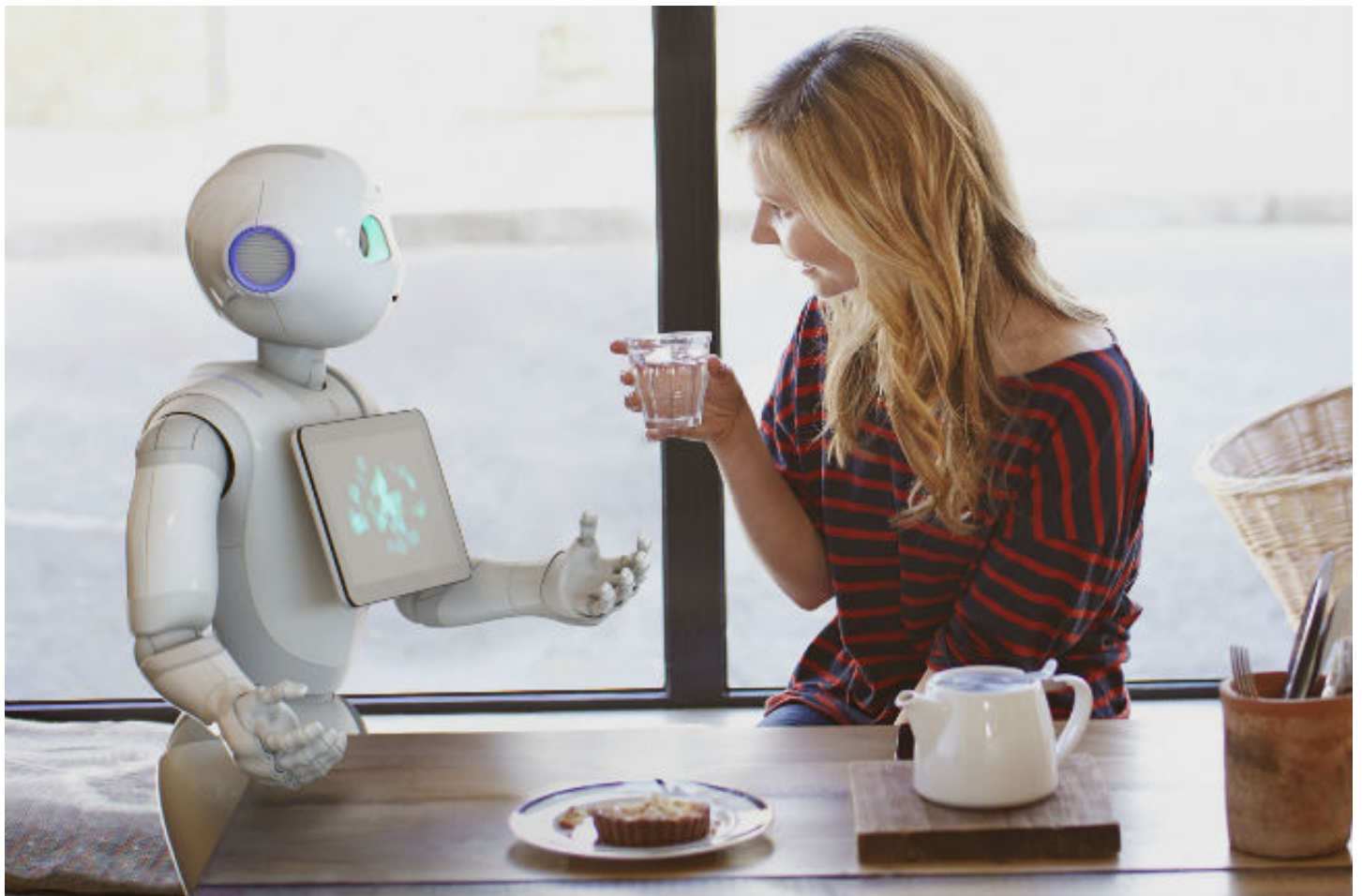*We should help them describe what they like.*

- What you like has a name: it is called **dystopian works**.
- You should read more **urban fantasy**, this is the way to go!

3. Just inform them about prices and opportunities.

- Did you know that some return flights to Japan only cost 375 €?
- There is a Karuta club in your city, you should have a look!

What we need

- Databases (events, goodies, soundtracks)
- A stand at every Japanese convention in 2018
- More communication about Mangaki
- Implement Mangaki on Pepper

"What should I watch today, Pepper?"

History of Mangaki

| 2015 | January | Beta launch with 150 anime |
	October	**Student Demo Cup prize** offered by Microsoft
2016	January	Our first contest with Wakanim (Kizumonogatari premiere at Grand Rex)
	March	**Japanese Cultural Institute in Paris prize**
	June	Talk at RecSysFR, research and development of recommendation systems
	Summer	We were invited to a **1-week workshop** in Tokyo by the Japan Foundation
2017	April	We held a conference at **Anime Expo**, Los Angeles
	Summer	**Mangaki Data Challenge** organized with Kyoto University
	August	Our first research paper has been accepted to an international conference: Using Posters to Recommend Anime and Mangas in a Cold-Start Scenario It made it to the front page of Hacker News!
	September	So far, Mangaki has **2,300 users, 15,500 works, 340,000 ratings**

Future of Mangaki

- To have Mangaki available in English and Japanese (so far, only the About page)

- To have Mangaki embedded in devices such as Pepper (SoftBank)

The Manga Market in France in 2015

- Japan: 500M volumes per year
- France: **13M volumes**
- US & Canada: 9M volumes

Japan Expo

- French convention over 4 days (starting on Tanabata)
- **250000 tickets** sold
- Average shopping cart: **130 euros** per person
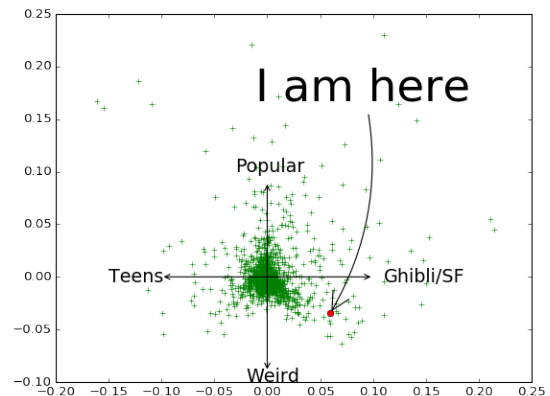

Yasutaka Tsutsui

Satoshi Kon
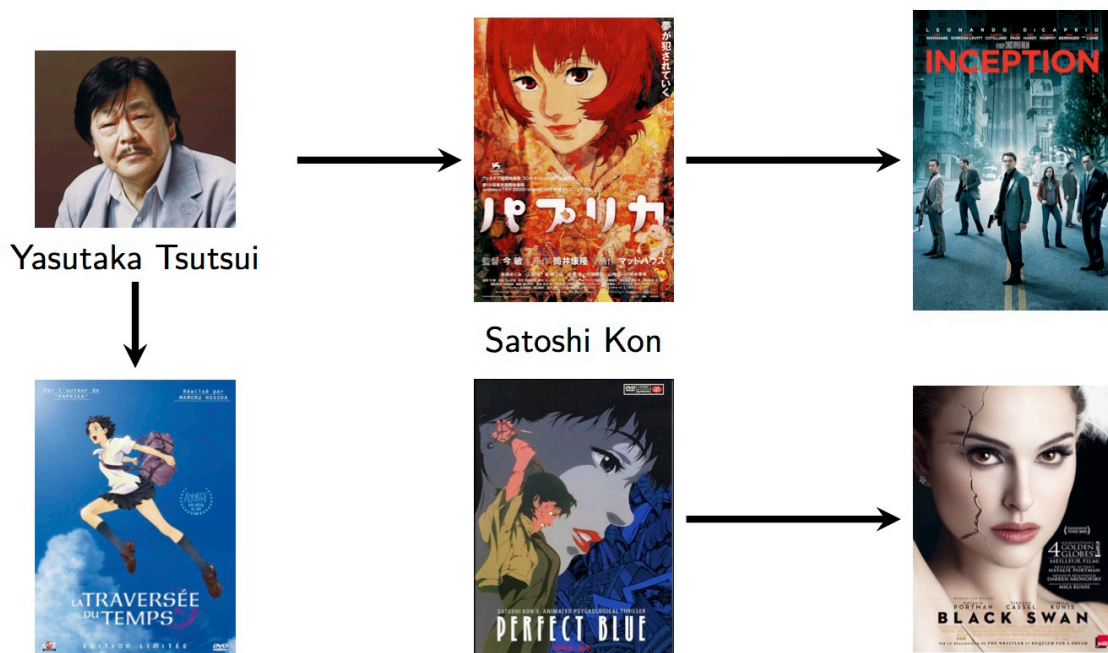
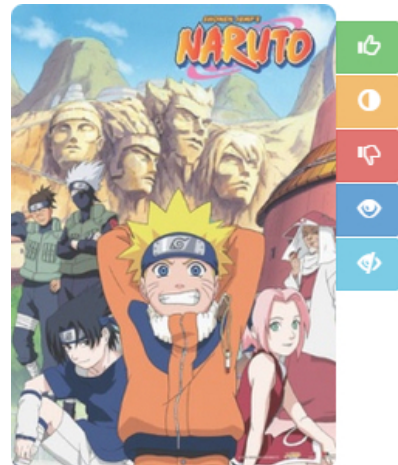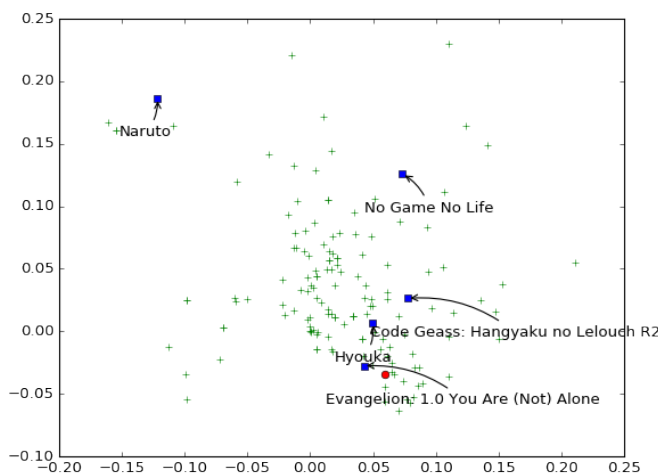# Our Algorithms

Weighted Alternate Least Squares for recommending works

This process is used in data analysis in order to reveal the main axes of a population. It is also used in predictive marketing.

Determinantal Point Processes for asking questions

This technique is currently used in order to increase the diversity of recommended works. We are using it for asking the right questions in order to get good recommendations.


Non-Negative Matrix Factorization for explaining tastes

This algorithm is used for extract meaningful components from raw data. Here is the profile of a person working at the French TV channel Nolife:

- NAOKI URASAWA WORKS (21.0 %)
- SHONEN 90s (16.6 %)
- GHIBLI (15.0 %)
- CYBERPUNK (10.7 %)
- ATMOSPHERICAL SHONEN (9.5 %)
- KYOTO ANIMATION WORKS (8.7 %)
- POPULAR WORKS (8.0 %)
- FAMOUS SHONEN (4.1 %)
- SEINEN (3.1 %)
- SHONEN MANGA (1.8 %)
- ISEKAI (0.8 %)

The Mangaki Team

Mangaki is a non-profit organization which currently has 28 members.
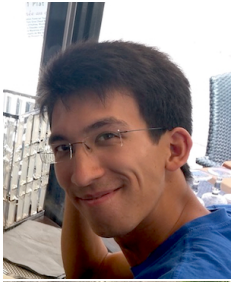
Jill-Jênn Vie, *President*

Jill-Jênn is Mangaki's founder and first developer. He holds a PhD in Computer Science and is currently a researcher at RIKEN AIP, Tokyo. He loves algorithms and programming contests, and wrote a book about *algorithmic problem solving*.

Ryan Lahfa, *Treasurer*

Ryan is Mangaki's chief technical officer. He is a passionate developer working on open source projects based on Python and Web technologies such as React.js, the JavaScript library that currently powers Facebook. He regularly holds some talks at Python/React.js meetups in Europe.
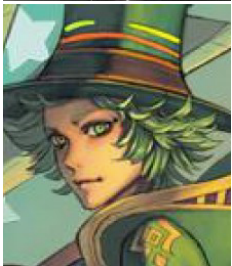
Basile Clement, *Vice-President*

Basile is a research engineer in a ML-based startup. He is multifaceted: he trained our deep learning models, designed the beautiful interface of Mangaki, and helped making our infrastructure easy to deploy and to understand.
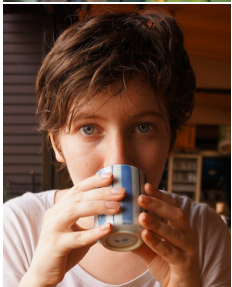
Solène Pichereau, *Graphic Designer*

Solène is a talented designer that made the logo, the corporate identity and the style guide of Mangaki. She works as a graphic designer for the Delcourt group. In her free time, she draws for Doujin Style. Her illustrations are mainly inspired by Japanese animated works.

Camille Poquet, *Community Manager & Front-Dev*

Camille is a Web engineer at a big French media group. He helps both on the social side and the layout side. Also: his culture about online manga databases has no limit.
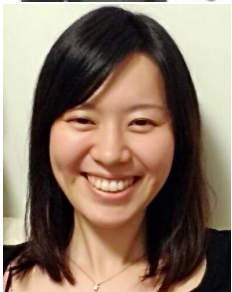
Tomoko Kozu, *Translator*

Tomoko is a Japanese professional translator. She can speak English, Japanese and Chinese fluently. She helps translating the website and is our intepreter during international events.

Our questions

- How can we help you for your events? (Ex. premieres in Paris, Japonisme 2018.)

- Are you interested in affiliate links towards your website on Mangaki?

- Are you interested in some consulting in recommendation algorithms?