4-Frame Manga Drawing Support System
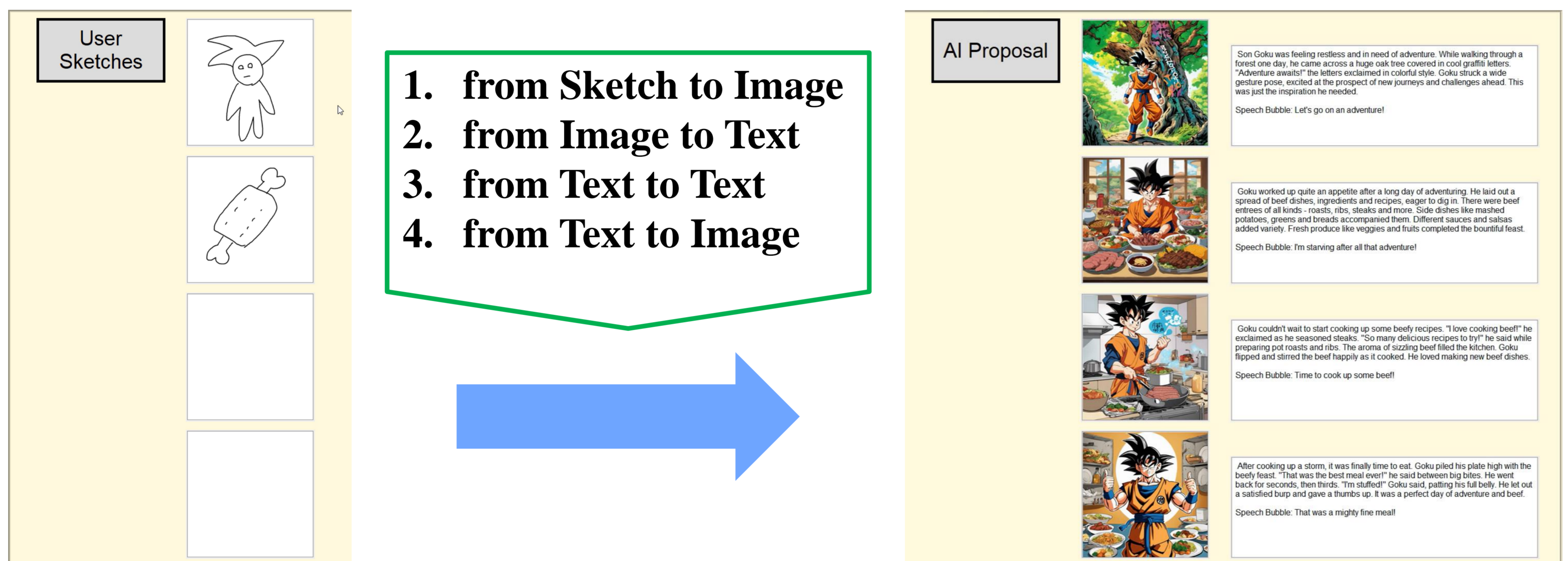
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➢ What is 4-Frame Manga?

We propose a 4-frame manga drawing support system that assists users in creating drawings. 4-frame manga is a form of Japanese manga, in which four frames are used to draw a short story. "Silent manga", prevalent in Japan, is a manga without dialogue, and the 4-frame manga handled by the proposed system is limited to "silent manga". The system recognizes each frame of the unfinished manga drawn by the user, and proposes a succession of frames, considering the content recognized so far, e.g., the storyline, frame composition, and punchlines.

➢ 4-Frame Manga Drawing Support System

1. The system recognizes the user's 4-frame manga drawing and proposes candidates for successive frames by applying 4 types of generative AIs.

1. **from Sketch to Image**
2. **from Image to Text**
3. **from Text to Text**
4. **from Text to Image**

1. from Sketch to Image
   Generates photographic images from user sketches that can be recognized by image recognition AI.
2. from Image to Text
   Recognizes objects and labels from the generated photographic images.
3. from Text to Text
   Generates a 4-paragraph story using the recognized objects and labels.
   Generates frames and speech balloons for a 4-frame manga using the generated 4-paragraph story.
4. from Text to Image
   Generates a drawing for each frame from the generated 4-frame manga frames.

2. The system changes the proposed 4-frame manga considering the user's facial expressions.

The user is working without problems!

The user is dissatisfied with the proposal!
The system redraws the proposed 4-frame manga.