

livePic

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1. Introduction

livePic is an interactive product which expands the drawing experience. livePic enables us to “move” and “control” the pictures we draw. When the user makes a certain action to the canvas, the pictures on the canvas move as if they are alive.

Many of us must have happy drawing time memories of childhood. livePic redesigns the relationship between the canvas and the user, also offering new experience and impression.

Specifically, the main interface of livePic is an interactive digital board, which the user can draw the picture on. It is equipped with a wind sensor, a tilt sensor, a pressure sensor and a microphone for voice-recognition. The system senses several actions by the user, and adds animations to the pictures as a feedback. For example, the system can sense the user’s breath, voice, a tilt or a jiggle. livePic converts these actions, and gives the picture a movement as if the picture is alive.

2. Concept

livePic will change the interactive relationship between picture and the user’s physical action. A fundamental concept of livePic comes from the idea, in which drawings suddenly move as if they are alive, often seen in scenes from classic cinemas or cartoons. The goal of livePic project is to achieve this concept as a future drawing style. The main system of livePic enables us to move the pictures by the user’s natural action in real-time. The user can draw, make an action to drawings using embodied interactions, find a new type of action, and discover a new experience, amusement, and surprise.

livePic is a toy, content, play style of the future. We expect to grab children’s hearts and to gain a lot of sympathy from the parents. livePic have possibilities to stimulate potential creativity and sensibility of the children and to grow their imagination throughout their youth. Furthermore, we expect that user draw picture just like the paper, not like software in the display, which users can devote to the drawing. livePic will blur the boundaries between art and science.

3. livePic

There are two types of livePic, the “touch panel” type and the “touch screen” type. The touch panel type of livePic is composed of a touch panel and a separate input-interface. The touch screen type of livePic is composed of a video projector that lights the screen from the back, and has a unified input-output interface.

3-1. Touch Panel Type of livePic

The touch panel type of livePic is composed of a main touch panel, which works as a drawing canvas, and several input-interfaces, which interacts with the picture. (Fig.1) Each of the input-interface works differently and the user can express several ways to interact with the picture. These interfaces will expand our experience.

3-1-1. System

The main interface is composed of a touch panel that the user can draw and erase on. The picture that the user draws moves by acting on to the input-interfaces. For example, if the user blows on to the flower-interface, the picture will fly on the canvas. If the user turns the handle, the picture will rotate. In addition, if the user

speaks a prescribed word to the interface, livePic senses the word, and makes the related action to the picture. Moreover, if the user carries up and tilts the touch panel, the picture will move in accordance to the tilt. Finally, the user can also control the picture with one’s finger. These actions are controlled first by a built-in sensor in the touch panel, and secondly by surrounding interfaces. This interface senses the interaction and moves the picture.



Fig.1 Touch panel type of livePic

3-2. Touch Screen Type of livePic

The touch screen type of livePic can be operated more intuitively than the touch panel type. This livePic has a unified interface, which the user can enjoy more spontaneously, just like real drawings. (Fig.2)



Fig.2 The touch screen type of livePic

3-2-1. System

The main screen has a system in which the picture is projected by a video projector from the back. The sensor behind the screen senses the movement of the pen and controls the drawings. Unique IDs are embedded on each pen, and the colors and functions of each pen vary respectively. Additionally, there are various sensors around the screen. These sensors sense actions taken by the user and sets actions in motion on the picture. (Fig.3)

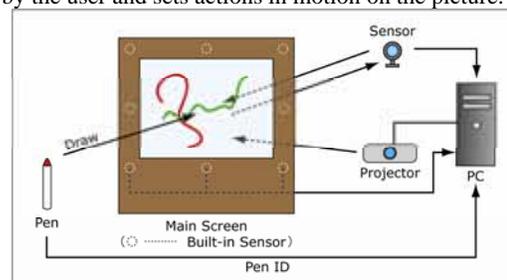


Fig.3 The system flow

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