

# Player-Recorder: Multi-sensing Substance and Evolving Network

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**Abstract.** Along with explosive growth of SNS, social, academic concern over establishment of human network has been consistently considered and evolution for the network through information being created by individuals has been mentioned among the researchers of each class. In this thesis, player-recorder that would play a role of media in creating a physical space that becomes networked by utilizing personal information of people was manufactured as a multi-sensing objet. The objective of this system is to achieve a communication space by utilizing sharing through storage and playback for information of unspecified mass in a specified space.

**Keywords:** Art installation, Interactive art, Player-recorder, Tilt switch, Network, Multi-sensing

## 1 Introduction

Due to an emergence of internet, a new media environment has been provided to the general public and service industry that helps establish human network for a specific concern or activity becomes a talk of the town. Human being is living in a unique network structure such as inter-personal network as they lead a social activity. Through unlimited number of information extended from a private message to N-body, public message, people share each other's feeling and create a bond of sympathy. In order to induce radical bond of sympathy, development of media having high affordance is required so that users may show intuitive response by taking a metaphor of recording/playing back human story-telling sound that may be called as an instant messaging. In order to induce intuitive understanding for a special function, an education effect by a simple behavior and instant response is required to be created. The objective of this thesis is to create a human information communication space in a specified place by developing a player-recorder that is operated by a simple behavior.

## 2 Hardware Configuration

Outside configuration of player-recorder comprises PVC capsule. Circuit board being mounted in capsule inside is made of mike, storage system, small speaker, tilt switch, mercury battery, input type button and LED. Sound being created by audience is transmitted to small mike and sound of app. 15 seconds portion is temporarily stored in main storage system. Stored sound is played back through speaker when tilt switch is operated and all the contents are consistently transmitted. At this time, LED is operated simultaneously and this LED is switched on only when tilt switch is operated and its color change and strength of brightness are controlled. Steel wire of 1m is connected to wooden stand at the lower part of capsule and it plays a fixing role with the bottom. As an operation sequence, the audience records sound by pushing a red button protruded from capsule being hung at the end of steel wire. And by shaking capsule with hand, stored play-back information of sound is heard by the audience. Information stored in several capsules is exposed to unspecified mass and tilt switch is designed to be operated even under shaking condition by wind. In exhibited work, app. 100 pieces of capsule were manufactured and it was installed in exhibition hall by it being distributed in its diversified space.

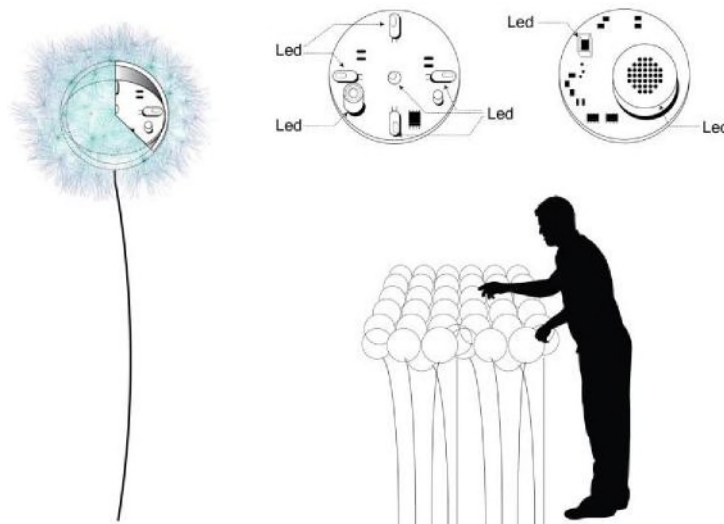
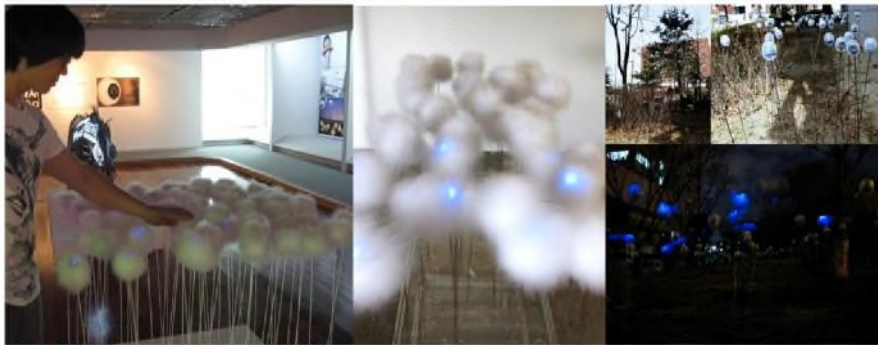


Fig. 1. Conception Diagram of the Record capsule

## 3 Multi-sensing Media

Like grass or reeds in the field makes sounds while being swayed by wind and rubbing each other, this work also shows diversified information in a simple motion of being swayed that may make people feel similar emotion. And by making capsule

outside with hair cover, the audience is induced to pay attention to capsule by touching it. Soft tactile feeling and wavering visual effect could be satisfied at the same time. Affordance like this makes the audience of unspecified mass have strong charisma and communicability. Through repeated and simple acquisition while simultaneously providing audience with visual, tactile, auditory effect, as audience is motivated to listen to stored information again and naturally shows concern over information created by other people, this system leads communication among the audience through media and performs a function of intervention among the audience by emphasizing participatory features as multi-sensing media.



**Fig. 2.** Signal Capsule



**Fig. 3.** Record of the Capsule Ver.1

## 4 Evolved Network

When observing an attitude of audience facing with the work, it looks very adventurous. In personal source, free flow of information is permitted and daily routine information consistently repeats a process of development and extinction. In a process of re-analyzing similar and incomplete information, a process of network formation could be experienced. It could be realized that in a repeated process of inputting information of other people again after hearing it, network is being evolved while a communication space is activated through creation of a new bond of sympathy.

## 5 Conclusion

Ecological environment makes people communicate with each other emotionally. Implementation function of player-recorder is simple but by manufacturing capsule as a multi-sensing media, it makes network of audience to be evolved. Diversified audiences could develop and share unlimited number of knowledge and information directly close to the reality and boundary crossing by the audience becomes a daily life. This thesis played an important role in creating communication space through network by manufacturing multi-sensing media under an emotional intention. The audience exchanges feedback with the work by directly participating in artistic activity rather than observing art work. It is hoped that even in cultural eco-system, as understanding for expanded art participation is sufficiently communicated, artistic expression of diversified forms would be created and based on this, cultural communication would be achieved.

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