

# An Ecology of Practice: Chiptune Marching Band

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## ABSTRACT

Chiptune Marching Band (CTMB) is a workshop-performance held in diverse public venues internationally (<http://chiptunemarchingband.com/>). The CTMB project proposes a contemporary form of dialogic art – an inclusive, participatory event designed to provide direct experience of resource, social and creative dynamics. In this poster we invoke the phrase “ecology of practice” to describe CTMB in terms of a number of interrelationships: amongst skills, with materials, in creativity and between participants. We also present our evaluative methods for ‘participant’ feedback within this type of event that are designed to be congruous with the overall intention.

## ACM Classification Keywords

J.5. Arts and Humanities: Performing arts.

## General Terms

Experimentation, Documentation

## Author Keywords

Community, art, performance, hacking, user studies, DIY

## INTRODUCTION

Interest in the study of collaboration and skill sharing is revolved around the development of skill communities and pro-sumer [5] cultures due to wide-scale proliferation of online resources of many types. These communities have been looked at primarily as a resource-centric and cultural capital based, in which actors are able and presumed to act in the interest of accruing or disseminating information to some personal, authorial end [5].

Of further interest within these communities are the social, real-time and real-space repercussions of online culture towards enabling creativity. Can we create meaningful, creative, ad-hock communities around a set of material or knowledge resources? How do resource-based communities (taking ‘resource’ here in its broadest context, i.e. all attributes, information and capabilities useful in a given situation) form around technologies and information?

This poster describes Chiptune Marching Band (CTMB), a

workshop-performance that explores these issues through localized energy generation and public sound performance. It further discusses CTMB as an “ecology of practice” to indicate how resources, information and creativity relate to each other in the context of amateur engagement with creative and performative uses of technology.

## WORKSHOP DESCRIPTION

CTMB is a workshop-performance, inviting attendees to learn, build and perform together while engaging with localized energy generation and public sound performance. CTMB workshops were hosted by Maker Faire UK, Pixelache Helsinki, and Bent Festival NY (all in 2009) with 7-20 participants at a time. In the 3 hour event, participants build a small sensor-driven sound making circuit (oscillator), powered by an alternative energy source (hand-crank generator). Contrasting comparable workshops [6], a kit of parts is provided to participants. The activity is supported by presentations and discussions on concepts such as energy technologies, audio synthesis and public performance. Cardboard tubes, colorful tapes, paint etc. are also provided for the construction and personalization of the instruments. With instruments in hand, the ‘band’ parades in the streets of the host city as a public performance and spectacle (Fig. 1). At the end of the march, participants take their instrument home.



Figure 1. CTMB in action in Maker Faire, Newcastle, UK

## EVALUATIVE TECHNIQUES

The study and evaluation of how everyday individual creativity may be materialized in the context of hands-on creative workshops/performances often overlaps with the documentation of these events. Moriwaki [6] productively

discusses workshops in terms of the instruments/artifacts produced by the participants; reflection on the value of the workshops is based on her own observation. Moreover, participants are often seen as individual artists/performers [9]. Distinctly, evaluation of CTMB focuses on the creative process, and seeks to understand how participants perceive the sessions by capturing their *motivations*, i.e. their reasons for attending the workshops, and their *response* to the concepts addressed. It further looks at how individual and collaborative creativity interrelate in the context of the workshop-performance and how the process and outputs of the event might fit with participants' everyday lives.

Initial studies included brief semi-structured interviews with 21 participants in Maker Faire and Pixelache CTMB events, video-recordings of the workshop/performance, and a postcard, asking participants to respond to the question "What's become of your instrument?" after they had left the CTMB event. The postcard, drawing on the cultural probes [1] approach, highlights that everyday DIY creativity extends beyond the boundaries of a single event – perhaps though the subsequent alteration of the creative output by its owner – and attempts to capture this trajectory.

### **WORKSHOP ECOLOGIES**

The term "ecology" for a dialogic art-event implies a fluid equilibrium between actors and with the environment in local relationships. We describe three resonances with ecological ideas, related to aspects of CTMB.

#### **A Resource Ecology**

The use of non-grid energy (hand-crank) sources as power for audio circuitry during the workshop gives direct experience of creative, social uses of localized resources (electricity). During the workshop, this experience helps point to the idea of engagement with materials and technologies that facilitate contact between people and with surroundings (e.g. flour mills, telegraph offices or local markets). People developing strong relationships *through* technologies, as opposed to using resource frameworks that create dependence and impotence [3] is a main motivation behind CTMB. These interrelationships within CTMB highlight trends towards creative practices that favor local, personal and communicative approaches [8].

#### **An Information Ecology**

Participants' involvement in the CTMB workshop signals a desire to engage with particular informational resources: a DIY community and resource-base of hardware hackers, musical experimenters and makers. This includes different kinds of people, working together in complementary ways, within an information structure that is at once diverse and homogenous (characteristics of information ecologies described elsewhere [7]).

#### **A Creative Ecology**

In recent sound making practices include CTMB and others, the boundary between performer and listener is increasingly

blurred [4]. Each person is a listener of others, and a performer to others. The traditional role of the creator is thus called into question [2]. We enact the shift to socially-engaged creativity which questions traditional paradigms of creative production and exchange, specifically within the musical-performance sphere.

### **CONCLUSIONS**

This work forms part of a practice-led research strand entitled "Art Off the Grid." This research is centered on the use of alternative energy strategies to sustain technology-based art. CTMB, as an interpretational and dissemination strategy towards building further capacity in this area has been consistently successful.

Our experience has also indicated that effective evaluation of collaborative creative sessions that bring together artists, technology and source communities requires the development of hybrid research methodologies, which reflect the multifaceted and reflexive nature of the event as artwork, performance and workshop by the artist/researcher who created it and its participants.

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### **REFERENCES**

1. Gaver, B., Dunne, T., Pacenti, E. (1999). Design: cultural probes. *Interactions*, 6 (1), 21-29.
2. Cornock, S., Edmonds, E. (1973). The creative process where the artist is amplified or superseded by the computer. *Leonardo* 6 (1), 11-16.
3. Illich, I. (1974). Tools for conviviality. Marion Boyars Publishers Ltd., London, UK.
4. Jo, K., Furudate, K., Ishida, D., Mizuki, N. (2008). Transition of instruments in The SINE WAVE ORCHESTRA. *Computers in Entertainment*, 6 (4), 1-18.
5. Leadbetter, C., Miller, P. (2004). The pro-am revolution: How enthusiasts are changing our economy and society. <http://www.demos.co.uk/>.
6. Moriwaki, K., Brucker-Cohen, J. (2006). Lessons from the scrapyards: Creative uses of found materials within a workshop setting. *AI & Society*, 20 (4), 506-525.
7. Nardy, B., O'Day, V. (1999). Information ecologies – Using technologies with heart. MIT Press, Cambridge, MA, USA.
8. Raffl, C., Hofkirchner, W., Fuchs, C., Schafranek, M. (2008). The Web as techno-social system: The emergence of Web 3.0.
9. Richards, J. (2008). Getting the hands dirty. *Leonardo Music Journal* 18 (Dec.), 25-31.