Enabling the Fabrication of Smart Objects by Non-Expert Users

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Figure 1. Example Blowhole applications. The elephant (a) has six holes (one on the head, one on the back, one on each foot) which, when blown into, activate text-to-speech with different elephant facts. Each bar in the bar chart (b) triggers a readout of the quantity, and can be moved to represent different data. The sperm whale, dolphin, and orca (c) each produce a different tone to trigger videos of those animals. The cell model's blowholes interact with a quiz program to test knowledge of its components (d).

ABSTRACT

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INTRODUCTION

RELATED WORK

Augmented Fabrication (?)

Interactivity

Acoustic

Electric

Hydraulic

Optic

Pneumatic

Metamaterial

Programming by Demonstration (?)

RESEARCH PLAN

INTERACTIVITY TOOLKIT

Blowhole

Overview

Implementation

Future Work

AirTouch

Shape-changing interfaces

CONCLUSION

APPENDIX

REFERENCES