

'Home is Heaven for Beginners'

Probes and Proposals for Domestic Technologies

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INTRODUCTION

There seems to be little doubt that digital technologies are poised to pervade our everyday lives. There are two reasons to be concerned about this development, however. The first is that new digital technologies are by no means uniformly successful. The collapse of the e-commerce 'bubble' is the most dramatic evidence of this, but other examples abound—sales growth has leveled off for desktop PCs, take up of digital television in the U.K. is much lower than anticipated, and there are real doubts that new-generation mobile telephone services will recoup the costs of the spectra sold to the operators. There are many signs that the fervour has worn off the digital revolution.

It is becoming clear that most people buy new technologies not just because they are new, but because they are useful. But utility, in an everyday context, takes a much wider definition than it does in the work contexts in which computers originally evolved. Things can be aesthetically useful, socially useful, culturally or politically useful. They can be useful in allowing people to perform tasks, or useful in allowing them not to, useful in allowing people to flirt, play, or pray. If the digital revolution is to spread to our everyday lives, these new forms of utility will have to be reflected by the products that are developed and, by implication, the methodologies used to develop them.

That we need to better understand what people want—and will pay for—is essentially an amoral, market-driven argument however. There are also moral and ethical reasons to reconsider how we develop technologies for everyday life. If, as Alan Kay says, 'the best way to predict the future is to invent it,' then invention is also the best to influence the future in ways we think are desirable. A number of issues confront inventors, designers, and developers of new technologies: Are there activities and domains for which technology is simply inappropriate? Should our designs emphasise the work that goes into making 'home' work, or offer opportunities for less goal-oriented activities? Do we want to steer our designs towards notions of 'traditional family values,' or support more unusual lifestyles as well? If we want to develop products that reflect people's aesthetic, emotional, and even spiritual lives, how do we avoid commodifying the very experiences we seek to enhance? These are issues that can be ignored, but not avoided. Not only do we need ways to deal with them conceptually, but crucially we need methods and approaches for dealing with them in practice.



Twenty volunteers were recruited using classified advertising.



We distributed Domestic Probe packs to each volunteer.



Provocative materials were designed to elicit inspiring returns.

Position paper for:
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EQUATOR

Over the last year and a half, I have been working with a team of three designers, Andy Boucher, Sarah Pennington, and Brendan Walker, to explore new technologies for the home. We are pursuing this research as part of the Equator IRC, a 6-year project involving teams from eight U.K. academic institutions. Equator's goal is to investigate new ways to merge the virtual with the physical. This involves a variety of technologies such as mobile and wearable devices, VR, and augmented reality, applied in various domains. Currently sub-projects are concerned with developing systems for children, for museums, for use in public spaces—and for the home.

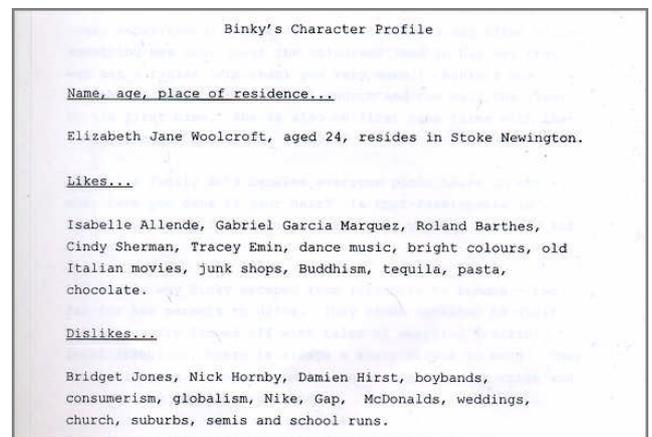
We are still in the early phases of understanding how to design meaningfully for home environments. So far we have investigated the variety of home lives that people lead, and started exploring ideas through sketch proposals. Our methods include:

- **Domestic Probes.** We distributed packs of probe materials to volunteers from 20 households in the greater London area. Materials include pads with questions and unusual news articles to respond to, cameras with requests for pictures, a 'dream recorder' and a 'listening glass.' Designed deliberately to subvert scientific analysis, both the materials and results serve as projective tests requiring meaning to be made of ambiguity. They are useful in allowing people to voice their aspirations and fears informally and unconstrained by our expectations.
- **Narrative interpretations.** Probes are not analysed, but serve as cues for us to create stories ('based on fact') about people. To emphasise that these are fictions, we have even asked other people (e.g. screenwriters, a forensic anthropologist, psychoanalyst, etc.) to interpret the probes with no further information. The stories we develop are inaccurate, but useful. They provoke us to imagine unexpected and unusual lifestyles while avoiding intrusions into the privacy of our volunteers.
- **Sketch proposals.** We have developed a number of proposals for new products and systems based on the Probes and other influences (from the arts and popular press as well as academic sources). These are captured in indicative sketches, and suggest ways that technologies might for instance be used to enhance people's engagement with the natural wildlife in their homes, create fictional extensions to the physical and social life of the home, or provoke reflection on the spiritual health of the home as manifested by mundane organisation. Developing our ideas in the form of fragmentary scenarios and sketch diagrams allows us to provoke imaginative engagement without committing prematurely to a particular design direction.

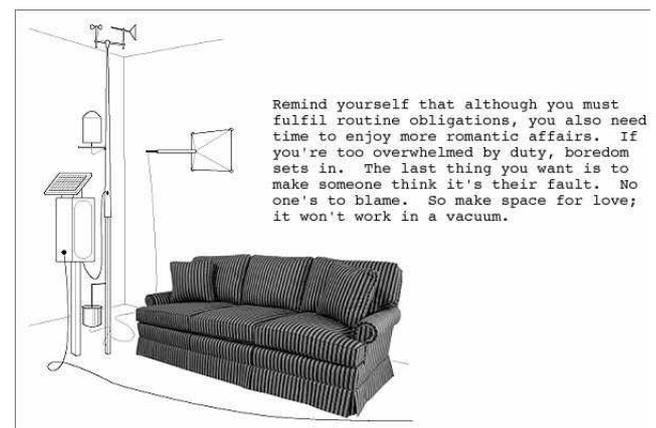
Our research on home technologies is design led. We use an approach that emphasises subjectivity and engagement over analysis and generality. This frees us to imagine unusual design possibilities and to maintain a concern for aesthetic, psychological, and cultural issues. Rather than relying on an accountable, explicit, replicable methodology (as scientists do), we rely on the fact that designers' individual reactions may resonate with those of the collective. We don't pretend to have solved, even for ourselves, many of the issues that must be addressed in designing technology for everyday life. We do think, however, that our methods support their continued consideration.



The myriad returns provided hints about people's lives.



We tried commissioning stories based on the probe returns.



Sketch proposals developed like props for stories of home.