Making the Computer Personal: Reconstructing Domesticity for the Information Age

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Theme of Paper

- How did people decide they needed a computer in their home?
  - Cultural work of reconstruction
- Looked at another way
  - What kind of a home would need a computer?

America in the mid-1970s

- A time of uncertainty and turmoil in the US
  - Energy shocks
  - Loss of faith in government
  - End of the Vietnam war
  - Economic and wage stagnation
- Within the home
  - Rapid rise in divorce rates
    - 2.3% in 1978, vs 0.5% in 1950s
  - More drugs and sex among teenagers
  - More women working outside the home
    - 51.5% in 1980 vs 37.7% in 1960

1: Getting Personal

Home Computer Concept

- Predates microprocessor
  - Originates as "home terminal" concept
  - Solution looking for a problem
- "If she can only cook as well as Honeywell can compute…"
  - 1969 minicomputer in drag
  - sold in Neiman Marcus catalog
  - around $10,000

The First Microcomputers

- MITS Altair
  - Launched 1975
  - Supplied in kit form
- Limited use
  - But expandable…

Users and Producers Blur?

- Best known user role – hobbyist designer
  - Steve Wozniak, Apple II Designer
- Mythology of
  - Geeks
  - Garages
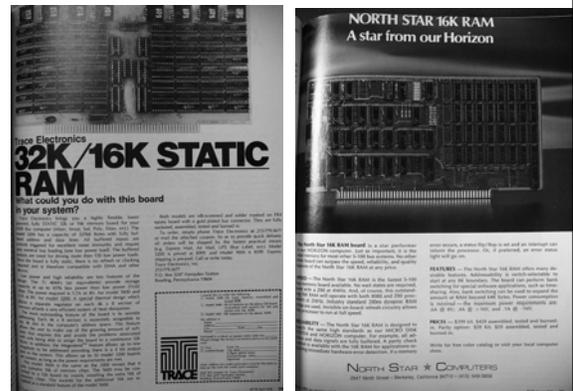 - Genius

Initial Constituency

- People who
  - Knew how to solder
  - Understood electronics
  - Wanted to play with a computer
- Served by Byte magazine
  - 88,000 circulation by spring 1977

Before & After

Selling to Enthusiasts

Attempted Domestication

"The Noval 760… appears in its natural setting: unfolded in a living room, office, or den. The console… folds into the desk… so that the Noval 760 blends into the décor as a desk-like woodtone piece of furniture."

Potted Plants are Common Motif

Tokenism I: The Rainbow Alliance

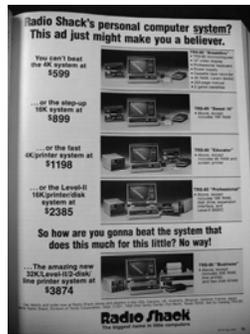"People from every walk of life are adding iCOM Floppy Disks to their microcomputers…"

Tokenism II: The Babe

"combines the 8080A CPU with a front panel featuring ultra-convenient octal keyboard and digital LED readout"
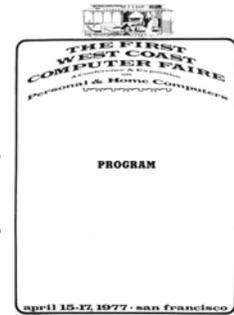

Pre-assembled Machines

- Follow by around 1977
  - Apple II
  - Radio Shack TRS 80
  - Commodore Pet

Computer Fairs

- Develop very rapidly
  - "Computer Faire" in Bay Area is most famous
  - But hundreds of others nationally
- Boundary between visitors and exhibitors fluid in 1970s
  - Booths are basic and cheap
  - Enthusiasts on both side of the trestle table


Computer Dealers

- An estimated independent 600 stores by 1976
  - Plus 5,000 Radio Shacks
- Functions
  - Sales
  - Tech support
  - Configuration
  - Training
  - Community hub
  - Some offer own software items

Trade Groups

- Trade groups established for
  - Hardware producers & Distributors
    - Microcomputer Industry Association
  - Software producers
    - Software Publishers Association
    - ADAPSO Microcomputer Software Section
  - National Computer Retailers Association
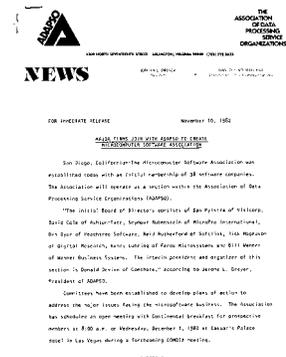
User Groups

- Distributed all over the country
- Activities include
  - Training sessions
  - Organizing exhibitions and shows
  - Creating user-contributed software libraries
  - Publishing newsletters

Newsletters

- Published by
  - User groups
  - Dealers
  - Computer manufacturers
- Contents include
  - Hints and tips
  - News and announcements
  - Program listings
- Some expand into commercial magazines

## Different Construction for Different Groups

- The PC is cultural reconstructed to fit in different social spaces
  - School
  - Hospital
  - Laboratory
  - Office
  - Home
- Specialized
  - Software firms
  - Hardware add-on vendors
  - Newsletters, user groups, etc
  - Networks within existing organizations

2: Buying and Selling the Home Computer

Home Computer Hardware

- Separate species, existed
  - from about 1978 to 1990
- Much cheaper than "business" PCs
  - Sold in large numbers
  - Better sound and graphics
  - Fewer peripheral options
- Connect to domestic TV
  - Often used with standard cassette player rather than disks
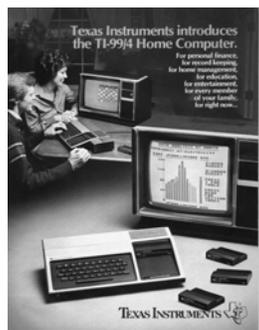
Home Computer Sales

- Sold in department and discount stores
- By 1983
  - Several models under $100
  - Around 5 million units sold annually in US

Commodore 64 sells 30 million worldwide, 1982-early 1990s

Celebrity Endorsements

- Isaac Asimov for Radio Shack
  - Science Fiction writer
  - Familiar yet Futuristic
- "It's like having the cosmos at your fingertips."

Bill Cosby for Texas Instruments

William Shatner for Commodore

(show Vic System advert)

Like a Kid

- Show the Alan Alda video

3: Using a Home Computer

But What Is It For?

'It's an interesting machine, but what do you actually use it for?' That's one of the most frustrating questions asked of personal computer owners. It's also often the most difficult to answer.

The Commodore 64, Getting the Most From it. (1983)

"It comes with its own BASIC language that's built in and uses plain simple English…"

Alan Alda, *Like a Kid*, 1982.

Programming

- BASIC language built into almost all home computers
  - turn them on, there it is
  - Instruction manuals teach programming
  - presented as way to get value out of purchase
- The ONLY thing you can do out of the box

Programming for Everyone

The TI Home Computer was designed to be used for extensive personal programming. The built-in BASIC language makes the TI99/4 a valuable desktop tool… a great way to teach your children about computers.

Computer Advice Books

- Mostly follow format of manual
  - Introduction
  - Physical set up
  - How to program
    - 60% or so of total
  - Reference tables

Program Listings

- Many books consist ONLY of programs to type in….
- This one includes
  - Nutrition Pack
  - Family Budget Comptroller
  - Studying State Capitals
  - Your Math Teacher

Byte, 1980, Pirate Adventure

Domestic Automation

Simple Programming:
You write your control programs in BASIC or Assembler language.

- Literal translation of industrial applications.

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Limited Range of Applications

- Same topics appear repeatedly in early (1977-1982) programs
  - Type-in from magazines
  - Printed in books
  - Sold on cassette
  - Used in computer advertisements
- Few seem particularly compelling
  - Reflect shared assumptions about home and computer's place in it

Gender Roles

Centerpiece of the nuclear family

The Magic Machine

"Mum laughed, and said the magic machine can start by cooking dinner…."

Byte Press, 1979

- Radio Shack, 1983
- "The Computer That Said NO To Drugs"
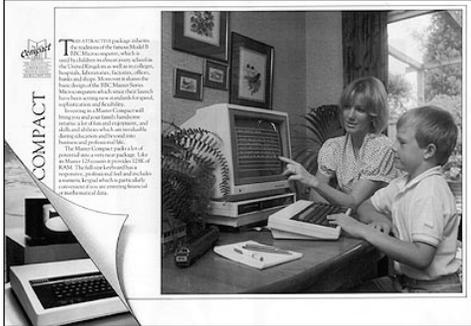
Husband

- Masculine
  - Tax preparation
  - Financial calculations
  - Checkbook balancing

Wife

- Feminine
  - Recipe databases
  - Calorie counting
  - Knitting
  - Biorhythms
- This book included programs for
  - "Shopping"
  - "Pantry Inventory"
  - "Recipe"
  - "Chore reminder"

Children

- Educational applications
  - Maths drill
  - Geography quiz, etc.
- Programming
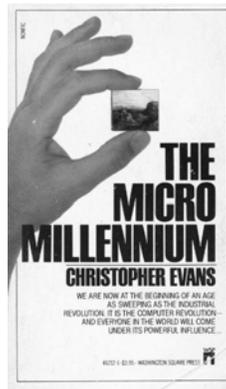

4: Conclusions

The Broader Context

- Late 1970s also saw popularization of ideas of
  - Information technology
  - Information society/Post Industrial Society
  - Computer literacy
  - Microcomputer revolution

The Third Wave

- Futurist Alvin Toffler
  - 1980, influential example of "information age" thinking

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- Utopian best seller
  - Intelligent machines by early 1990s
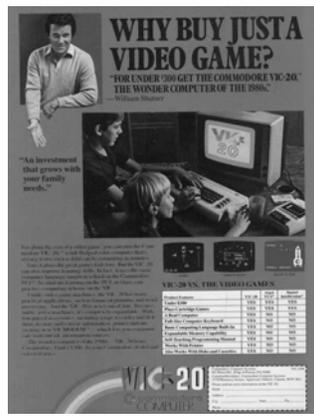

Computer Literacy

- A loaded term
- Assumed to require programming skills

Creative Computing, 1977

It's Educational!

- Computers play games but are good for you too

- (Video clip: Commodore Job Interview)

The Actual Use: Games?

An Irony

- The success of the home computer hinged on idea of a "microcomputer society" changed beyond all recognition. Never happened.
- BUT, those involved in domesticating the computer were trapped in a 1950s sitcom vision of the perfect suburban family already fatally undermined by REAL social change.