

Women make up a mere 4%  
of game programmers

Yearly Game Developer salary survey of 2012

Women make up around 25% of programmers over all.

**You might be thinking this isn't bad right?**

**WRONG**

# Truth?

It's worse now than ever  
before.

## The percentage of computing occupations held by women has been declining since 1991



And if you look at just the number of programmers and not the whole field? It's worse.

**In 1987, 42% of American  
programmers were women**

# Programming was even considered women's work

April, 1967 issue of *Cosmopolitan*, "The Computer Girls"

If it doesn't sound like woman's work -- well, it just is.... "



## The Computer Girls

BY LOIS MANDEL

A trainee gets \$8,000 a year ... a girl "senior systems analyst" gets \$20,000—and up! Maybe it's time to investigate...

Ann Richardson, IBM systems engineer, designs a bridge via computer. Above (left) she checks her facts with fellow systems engineer, Marvin V. Fuchs. Right, she demonstrates on a viewing screen how her facts designed the bridge, and makes changes with a "light pen."

Twenty years ago, a girl could be a secretary, a school teacher ... maybe a librarian, a social worker or a nurse. If she was really ambitious, she could go into the professions and compete with men ... usually working harder and longer to earn less pay for the same job.

Now have come the big, dazzling computers—and a whole new kind of work for women: programming. Telling the miracle machines what to do and how to do it. Anything from predicting the weather to sending out billing notices from the local department store.

And if it doesn't sound like woman's work—well, it just is.

("I had this idea I'd be standing at a big machine and pressing buttons all day long," says a girl who programs for a Los Angeles bank. I couldn't have been further off the track. I figure out how the

computer can solve a problem, and then instruct the machine to do it."

"It's just like planning a dinner," explains Dr. Grace Hopper, now a staff scientist in systems programming for Univac. (She helped develop the first electronic digital computer, the Eniac, in 1946.) "You have to plan ahead and schedule everything so it's ready when you need it. Programming requires patience and the ability to handle detail. Women are 'naturals' at computer programming."

What she's talking about is *aptitude*—the one most important quality a girl needs to become a programmer. She also needs a keen, logical mind. And if that zeroes out the old Billie Burke-Grace Allen image of femininity, it's about time, because this is the age of the Computer Girls. There are twenty thousand of them in the United (cont. on page 54)



Photos by Henry Grossman. Dress by Gino Charles.

# Women programmed almost all of the earliest computers as part of war efforts

Comput "her" was even a common idea – the job of human computer was *\*reserved\** largely for women.

“[Human computers](#) in the NACA High Speed Flight Station "Computer Room", Dryden Flight Research Center Facilities” 1949



# Why this dramatic switch?

The personal computer and all of the advertising that went right along with it

It was an expensive item so it was targeted at the family bread winner. The advertising took sexism to a new level. It created the impression that

**computers were  
not “for” women.**



## We're looking for the most original use of an Apple since Adam.

What in the name of Adam do people do with Apple Computers? You tell us.

In a thousand words or less.

If your story is original and intriguing enough, you could win a one-week all-expense paid trip for two to Hawaii. Which is the closest we could come to paradise.

### Win fabulous prizes for creative writing.

To enter, drop by your nearest Apple dealer and pick up an entry blank. Fill it out. Then write an article, in 1000 words or less, describing the unusual or interesting use you've found for your Apple.

A jury of independent judges will cast the deciding vote for the grand prize: a week for two, airfare included, in Hawaii.

The judges will also choose 16 additional winners, two each from eight categories:

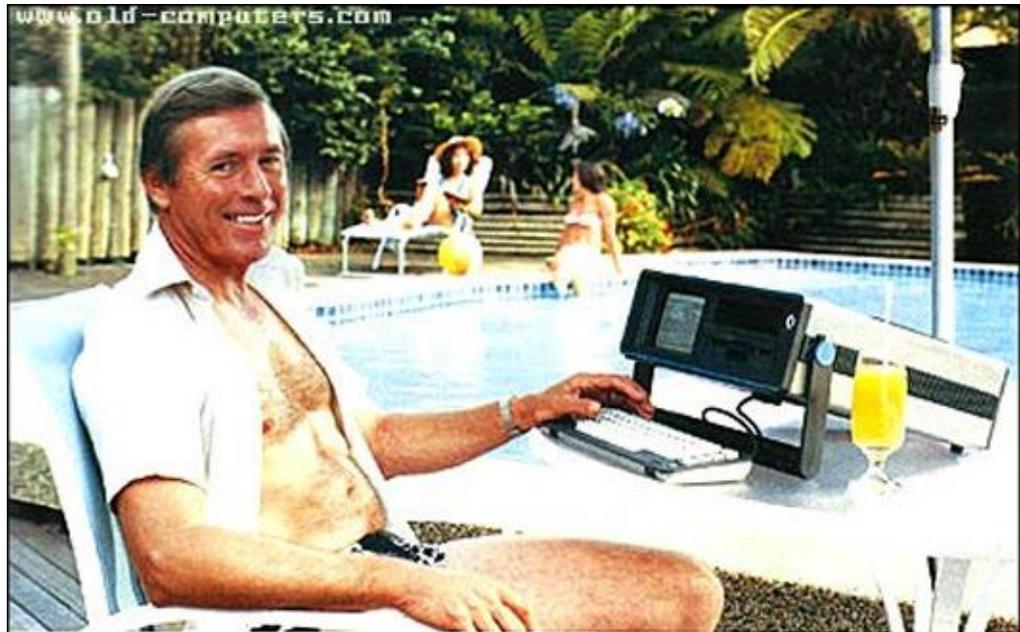
graphics/music, entertainment, home, business, education, scientific, professional, and industrial. And each winner will choose from a long list of longed-after Apple peripherals—from Apple Disk II's to Graphics Tablets to printers. Or you can take a \$250 credit towards the purchase of any Apple product.

The contest ends March 31, 1980. All winners will be notified by May 15.

Entry forms are available at your participating Apple dealer. Call 800-538-9696, (800-662-9238 in California), for the one nearest you.

Mail the entry blank, your article and any photos to: Apple Computer, "What in the name of Adam" contest, 10260 Bandley Drive, Cupertino, CA 95014.

And may the juiciest application win.



## Who's keeping up with Commodore?

The Commodore EXECUTIVE 64. A personal, portable computer with outstanding graphics, colour, music and astonishing computing capability, all in an easy-to-carry case.



64 is designed for the movers of this world. Designed to give you the power. Power at your fingertips. The power of 64K memory. The power to keep up. In the office. At home. Or in your home away from home.

The Commodore EXECUTIVE

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CC 92 Postcode \_\_\_\_\_ Phone \_\_\_\_\_ CM



# The first personal computer for under \$200.

The Sinclair ZX80.  
A complete computer—  
only \$199.95 plus \$5.00 shipping.

Now, for just \$199.95, you can get a complete, powerful, full-function computer, matching or surpassing other personal computers costing several times more.

It's the Sinclair ZX80, the computer that independent tests prove is faster than all previous personal computers. The computer that "Personal Computer World" gave 5 stars for 'excellent value.'

The ZX80 cuts away computer jargon and mystique. It takes you straight into BASIC, the most common, easy-to-use computer language.

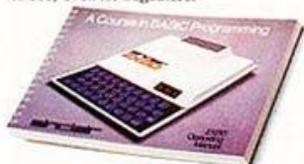
You simply take it out of the box, connect it to your TV, and turn it on. And if you want, you can use an ordinary cassette recorder to store programs. With the manual in your hand, you'll be running programs in an hour. Within a week, you'll be writing complex programs with confidence.

All for under \$200.

Sophisticated design makes the ZX80 easy to learn, easy to use.

We've packed the conventional computer onto fewer, more powerful LSI chips—including the Z80A microprocessor, the faster version of the famous Z80. This makes the ZX80 the world's first truly portable computer (6½" x 8½" x 1½" and a mere 12 oz.). The ZX80 also features a touch sensitive, wipe-clean keyboard and a 32-character by 24-line display.

Yet, with all this power, the ZX80 is easy to use, even for beginners.



## Your course in computing.

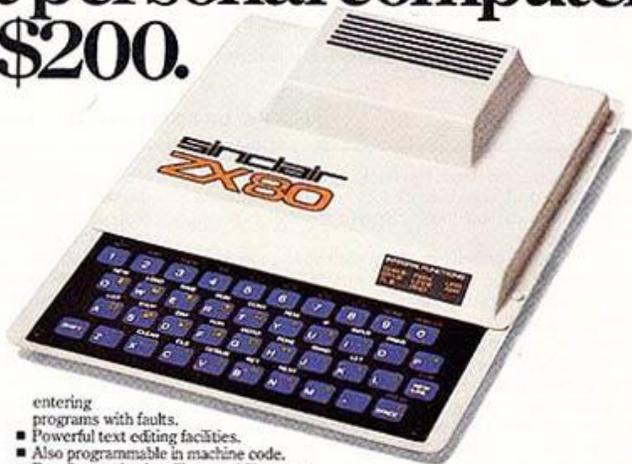
The ZX80 comes complete with its own 128-page guide to computing. The manual is perfect for both novice and expert. For every chapter of theory, there's a chapter of practice. So you learn by doing—not just by reading. It makes learning easy, exciting and enjoyable.

## The ZX80's advanced design features.

Sinclair's 4K integer BASIC has performance features you'd expect only on much larger and more expensive computers.

These include:

- Unique 'one touch' entry. Key words (RUN, PRINT, LIST, etc.) have their own single-key entry and are stored as a single character to reduce typing and save memory space.
- Automatic error detection. A cursor identifies errors immediately to prevent



- entering programs with faults.
- Powerful text editing facilities.
- Also programmable in machine code.
- Excellent string handling capability—up to 26 string variables of any length.
- Graphics, with 22 standard symbols.
- Built-in random number generator for games and simulations.

Sinclair's BASIC places no arbitrary restrictions on you—with many other flexible features, such as variable names of any length.

And the computer that can do so much for you now will do even more in the future. Options will include expansion of 1K user memory to 16K, a plug-in 8K floating-point BASIC chip, applications software, and other peripherals.

## Order your ZX80 now!

The ZX80 is available only by mail from Sinclair, a leading manufacturer of consumer electronics worldwide. We've already sold tens of thousands of units in Europe, so demand will be great.

To order by mail, use the coupon below. But for fastest delivery, order by phone and charge to your Master Charge or VISA. The ZX80 is backed by a 30-day money-back guarantee, a 90-day limited warranty with a national service-by-mail facility, and extended service contracts are available for a minimal charge.

Price includes TV and cassette connectors, AC adapter, and 128-page manual. All you need to use your ZX80 is a standard TV (color or black and white). The ZX80 comes complete with connectors that easily hook up to the antenna terminals of your TV. Also included is a connector for a portable cassette recorder, if you choose to store programs. (You use an ordinary blank cassette.)



The ZX80 is a family learning aid. Children 10 and above will quickly understand the principles of computing—and have fun learning.

Phone orders only: (203) 265-9171. We'll refund the cost of your call. Information: General and technical—(617) 367-1988, 367-1909, 367-1898, 367-2555. Phones open Monday-Friday from 8 AM to 8 PM EST.

**sinclair** Sinclair Research Ltd., 475 Main St., P.O. Box 3027, Wallingford, CT 06492.

To: Sinclair Research Ltd., 475 Main St., P.O. Box 3027, Wallingford, CT 06492.

Please send me \_\_\_\_\_ ZX80 personal computer(s) at \$199.95\* each (US dollars), plus \$5 shipping. (Your ZX80 may be tax deductible.)

I enclose a check/money order payable to Sinclair Research Ltd. for \$\_\_\_\_\_.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Occupation \_\_\_\_\_ Age: \_\_\_\_\_

Intended use of ZX80: \_\_\_\_\_

Have you ever used a computer?  Yes  No.

Do you own another personal computer?  Yes  No. \*For Conn. deliveries, add sales tax.

IA-12-0



## Two New Reasons to Choose Our TRS-80® Portable Computer: A Video Display and Disk Storage!

AS LOW AS  
\$45 PER  
MONTH  
TRS-80 Model 100  
Disk/Video Interface  
**79900**  
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Shown with optional second drive



## What kind of man owns his own computer?

Rather revolutionary, the whole idea of owning your own computer? Not if you're a diplomat, printer, scientist, inventor... or a kite designer, too. Today there's Apple Computer. It's designed to be a *personal* computer. To un-complicate your life. And make you more effective.

### It's a wise man who owns an Apple.

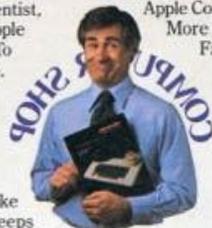
If your time means money, Apple can help you make more of it. In an age of specialists, the most successful specialists stay away from uncreative drudgery. That's where Apple comes in.

Apple is a real computer, right to the core. So just like big computers, it manages data, crunches numbers, keeps records, processes your information and prints reports. You concentrate on what you do best. And let Apple do the rest. Apple makes that easy with three programming languages—including Pascal—that let you be your own software expert.

### Apple, the computer worth not waiting for.

Time waiting for access to your company's big main-frame is time wasted. What you need in your department—

on *your* desk—is a computer that answers only to you... Apple Computer. It's less expensive than timesharing. More dependable than distributed processing. Far more flexible than centralized EDP. And, at less than \$2500 (as shown), downright affordable.



### Visit your local computer store.

You can join the personal computer revolution by visiting the Apple dealer in your neighborhood. We'll give you his name when you call our toll free number (800) 538-9696. In California,

(800) 662-9238.

Apple Computer, 10260  
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Cupertino,  
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apple computer 



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Our servers  
won't go down  
on you either.**

We've all known disappointment. And few things are more disappointing than undependable, expensive servers that don't satisfy your needs. To avoid the heartbreak of lost expectations, QSOL provides dependable, server solutions for virtually any popular operating system at a price that will blow your mind not your budget.

QSOL.com Server Appliances come in a variety of configurations to meet the most specific needs of our users. Whether you're into ITU with 8/16 Cores, or SU with nearly 40+ Terabytes, we can provide a server that can perform under the most demanding conditions. If your server isn't giving you what you want, visit QSOL. (Don't worry, it's a sure thing)

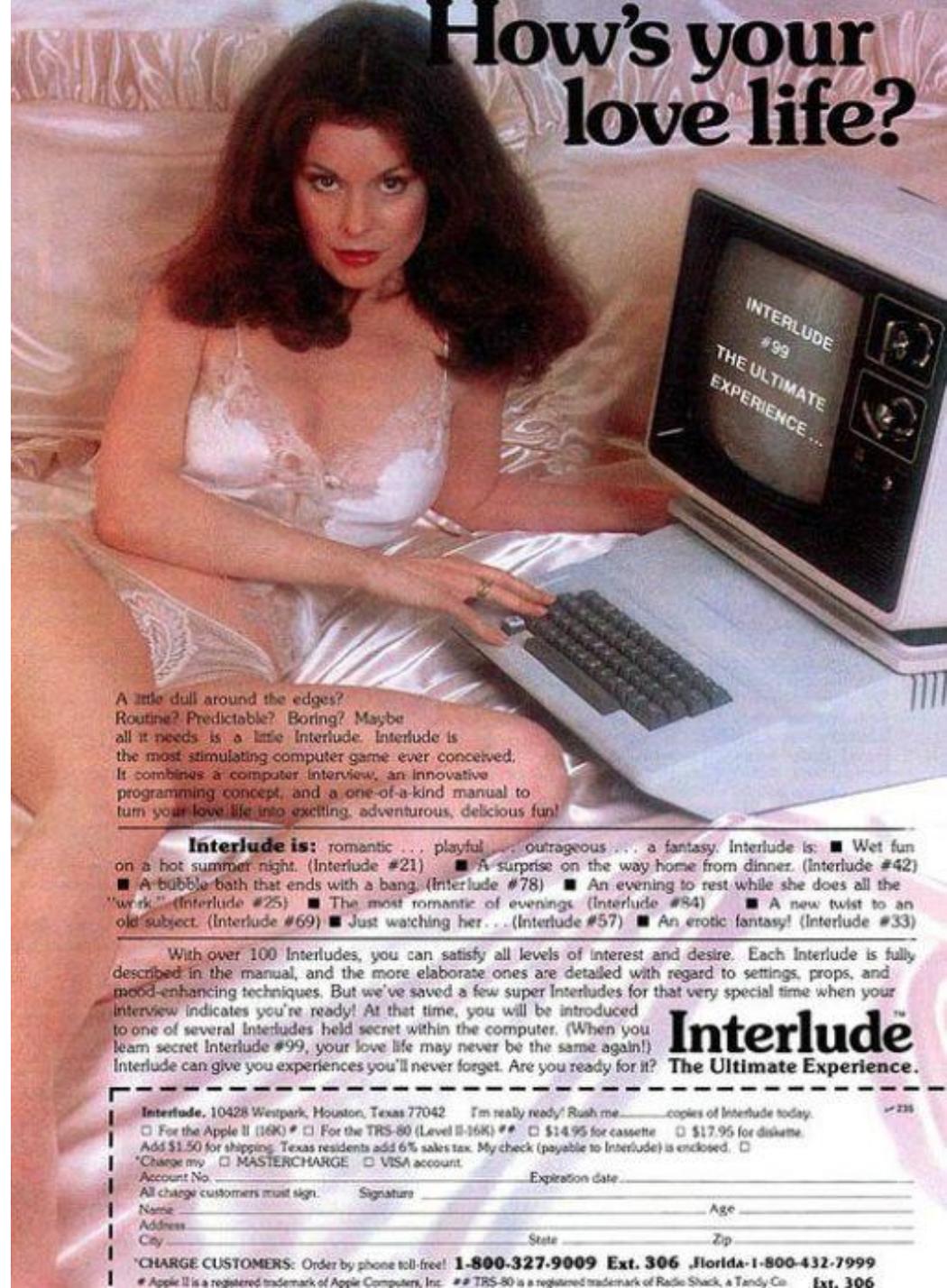


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adland.tv



**How's your  
love life?**

A little dull around the edges? Routine? Predictable? Boring? Maybe all it needs is a little Interlude. Interlude is the most stimulating computer game ever conceived. It combines a computer interview, an innovative programming concept, and a one-of-a-kind manual to turn your love life into exciting, adventurous, delicious fun!

**Interlude is:** romantic ... playful ... outrageous ... a fantasy. Interlude is: ■ Wet fun on a hot summer night. (Interlude #21) ■ A surprise on the way home from dinner. (Interlude #42) ■ A bubble bath that ends with a bang. (Interlude #78) ■ An evening to rest while she does all the "work." (Interlude #25) ■ The most romantic of evenings. (Interlude #84) ■ A new twist to an old subject. (Interlude #69) ■ Just watching her ... (Interlude #57) ■ An erotic fantasy! (Interlude #33)

With over 100 Interludes, you can satisfy all levels of interest and desire. Each Interlude is fully described in the manual, and the more elaborate ones are detailed with regard to settings, props, and mood-enhancing techniques. But we've saved a few super Interludes for that very special time when your interview indicates you're ready! At that time, you will be introduced to one of several Interludes held secret within the computer. (When you learn secret Interlude #99, your love life may never be the same again!) Interlude can give you experiences you'll never forget. Are you ready for it?

**Interlude™**  
The Ultimate Experience.

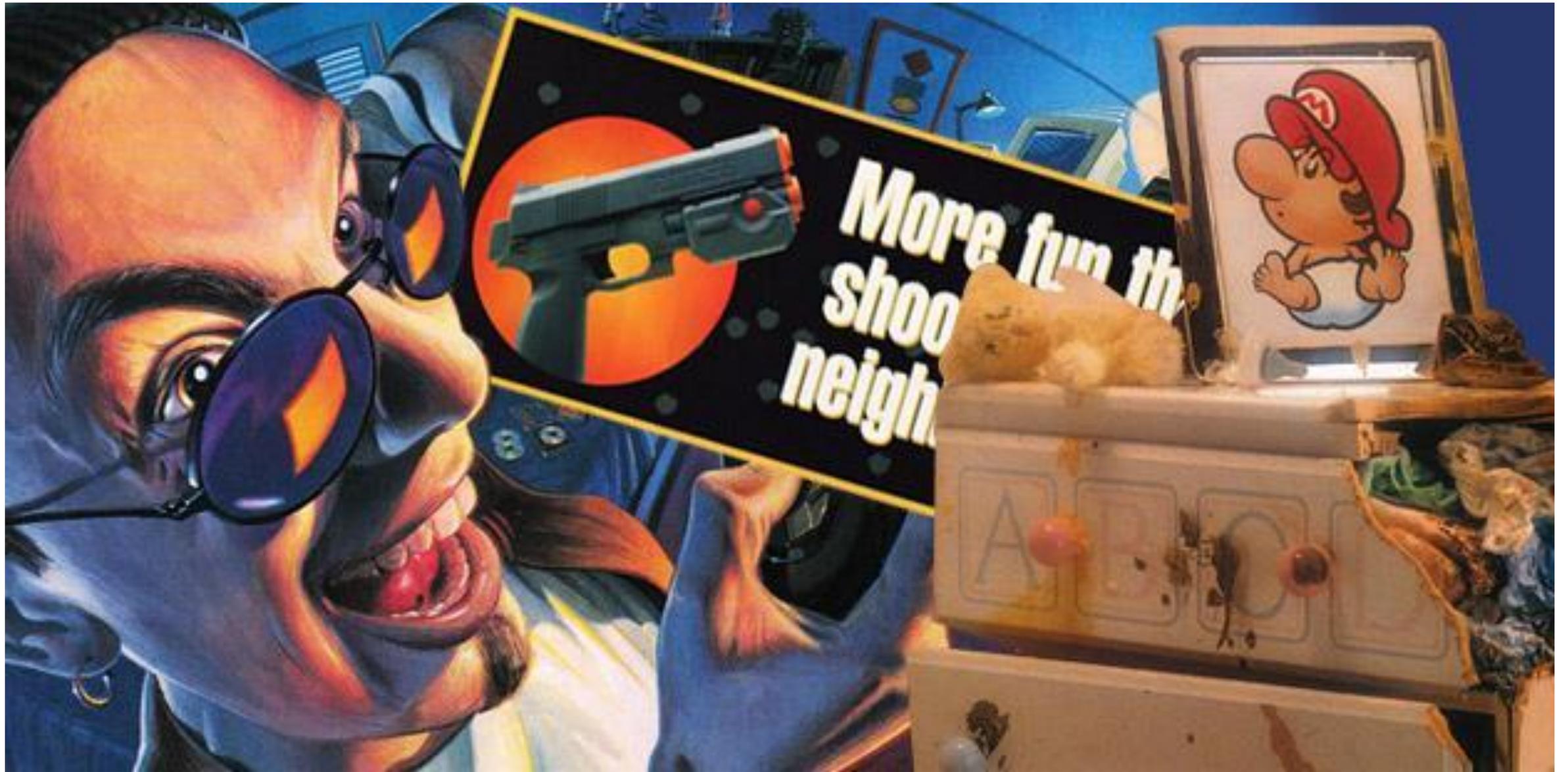
Interlude. 10428 Westpark, Houston, Texas 77042 I'm really ready! Rush me \_\_\_\_\_ copies of Interlude today. # 238  
 For the Apple II (16K) #  For the TRS-80 (Level II-16K) ##  \$14.95 for cassette  \$17.95 for diskette.  
 Add \$1.50 for shipping. Texas residents add 6% sales tax. My check (payable to Interlude) is enclosed.

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# Apple II is a registered trademark of Apple Computers, Inc. ## TRS-80 is a registered trademark of Radio Shack, a Tandy Co. Ext. 306

And this advertising ramped up to an extreme in gaming in the 90's. Gaming was depicted as something only little boys or men did. The ads are either **male dominated or disturbingly misogynistic.**



# GARGOYLES

Q·U·E·S·T



Licensed by  
**Nintendo**

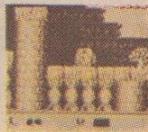


## GRAPHICS SO REAL YOU'LL FORGET IT'S ONLY A GAME



Dazzling graphics and excellent sound bring a whole new dimension to the Game Boy! Enchantment and excitement await you in Gargoyles' Quest.

Prepare to do battle as Firebrand, the last Guardian Gargoyle of the Ghoulish Realm. You must act quickly to defend your world against an invading army of Destroyers.



Fight your way through enemy forces to reach the dimensional portal that leads to your home world. Once there, the true nature of the quest begins.

The King of the Ghoulish Realm has been kidnaped and it's up to you to save



him. Blast the attackers with fiery breath as you fly through their defenses. Unravel the mysteries of this multilevel universe to succeed in conquering the Destroyers and freeing the captive King.

• Highly-detailed artwork sets new standards for the Game Boy!

• Advanced playability, highlighted with 360 degree scrolling.



• Hours of entertainment await you in this diverse adventure.

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**she really  
wants it**



**BATTLECRY  
3000AD**  
PC CD ROM

**GAME TEK**

However women  
make up **nearly half** of  
all gamers

This year at the Game Developer's Conference I was in the PlayStation booth with my new Vita game, Crystallon. Men asked me constantly if there was someone who could tell them about my game....

What  
do Vita  
ad's  
look  
like?



What we have  
here is an **image**  
**problem**

How do we fix it?

**UNDO THE**

**DAMAGE**

**WE WOMAN UP**



the

CODE LIBERATION FOUNDATION

We build healthy communities of  
**female gamers**  
**developers.**

And we help each other

**LEARN & CREATE**

We give each other free classes both online and in person.

We meet and play and talk about games.

We function like a mesh network.

**And we are just getting started.**

We ran 33 hours of free c++  
game development classes this  
summer.

Our anonymous  
feedback survey results

"CLF is a precious gem that is embedded with a promise to change the ratio in the tech industry."

"I do not have a tech background and usually feel intimidated by coding. This environment was comfortable for me to learn in."

"I'm working on stepping out of the shadows of my male peers, and deeply appreciated having a supportive circle of women around me."

"You've exposed us to the power of programming! It shall spread through our bodies like radiation and mutate us into... programmers!"

JOIN US AND

CHANGE THE GAME

Because game development can look like this





hello world I am a  
programmer

Want a chapter in your town?  
Start one and **hook into our  
network in New York.**

[hello@codeliberation.org](mailto:hello@codeliberation.org)

**JOIN OUR  
ARMY**

[www.codeliberation.org](http://www.codeliberation.org)

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hello@codeliberation.org