COMPUTERS ON LAW & ORDER

A project by Jeff Thompson

This body text of this book is set in 12-point Minion Pro with 30-point chapter headers and hand-bound in an edition of 200.

A digital version of this book and the entire screenshot archive are available at: computersonlawandorder.tumblr.com

Supported by a commission from Rhizome





Out with the old, in with the new (13, 282)

in the run of the show.

- 10. In 2001, 49.1% of Americans were internet users; by 2002 that number rose to 58.8%.
 - http://en.wikipedia.org/wiki/Internet in the United States#Usage
- 11. For a listing of all the fake web addresses used on the show, see the "Fake Websites" section, or my post about the addresses, which also includes links to Whois lookups for each.

 http://www.jeffreythompson.org/blog/2014/01/06/every-url-on-law-order
- 12. Exact verification is hard to find, but watching NBC shows from this time makes Apple sponsorship pretty apparent.

 http://www.brandchannel.com/home/post/Steve-Jobs-Legacy-on-Hollywood-Apple-Product-Placement.aspx





THANK YOU, A NOTE ON COPYRIGHT

A special "thank you" goes to Michael Connor and Zoë Salditch from Rhizome for their assistance making this project possible and for supporting what many would consider a pretty out-there proposal. Additional thanks goes to the Museum of the Moving Image for hosting the launch of the project. NBC and the writers, actors, and crew of *Law & Order* also deserve tremendous credit for creating such a lasting, at times quirky and problematic, but overall unfathomably rich document of the past 20 years of American culture.

Images in this book, as well as quotations and other material,

stablers-eyes

- 5. Close to but not every computer. Computers that appeared onscreen for only a single frame and were blurred or mostly cut off were not captured.
- 6. The start of *Law & Order* coincides with the beginning of internet pioneer Tim Berners-Lee's work on the World Wide Web while at CERN.

http://www.w3.org/People/Berners-Lee/Longer.html

- 7. Law & Order is a data set of surprising depth, and merits further analysis from a variety of fronts. Other tactics from other disciplines will yield very different results: a few possibilities include examining how justice, gender, and race are presented in the show, or textual analyses of the scripts for patterns or trends.
- 8. Some internet sleuthing suggests that the computer is either an IBM Personal System/2 (which definitely appears in episode 2) or is a prop. The unidentified peripheral remains a mystery since the first mouse doesn't appear until season six.
- 9. There are some notable exceptions, namely that we see very few common peripherals like mice and joysticks, or the CD-ROM's multimedia and interactive content. Old-fashioned equipment continues throughout the majority of the show's run. This may reflect the limited budgets of a large-city police force, and in that way is more accurate, but this seems a conversation worth further investigation.

Another exception in the opposite direction is, of course, the occasional indulgence in "zoom-and-enhance," which shows up first in season 5, episode 102 and again nine more times

NOTES

- 1. While Law & Order ran for the same number of seasons as Gunsmoke, it is worth noting that Gunsmoke produced 635 episodes, compared to Law & Order's 456. The only show to run longer than Gunsmoke is The Simpsons, which at the time of writing has produced 25 seasons and 540 episodes.
- 2. The characteristic and variously described "dun-dun!" sound effect was created by series composer Mike Post. The sound was made from "an amalgamation of nearly a dozen sounds, including an actual gavel, a jail door slamming, and five hundred Japanese monks walking across a hardwood floor." http://en.wikipedia.org/wiki/Law_%26_Order#Music_and_sound_effects
- 3. For a quick introduction to the idea of "binge-watching," including an analysis of Netflix uses this kind of watching to its advantage, see this Wall Street Journal article:

 http://online.wsj.com/news/articles/SB10001424052702303
 932504579254031017586624
- 4. There are a lot of great moments to be pulled from the show and its spin-offs, but a few are worth highlighting:
 - Detectives on *Law & Order: Criminal Intent* with a computer and "Yes/No" cards:
 - http://www.jeffreythompson.org/blog/2012/11/02/yesno
 - A break from the show's very definite third-person vantage where we literally see through detective Elliot Stabler's eyes in an episode of *Law & Order: SVU*:
 - http://www.jeffreythompson.org/blog/2011/09/08/elliot-

include the season and episode number in parentheses. Episode numbering starts at 1 and runs through the final episode at 456. Similar citations can be found on the project site in the image filenames, including exact times for each screenshot in the episode.

All images in this book are copyright NBC/Universal. While falling under fair use, if you enjoy these images from the show I encourage you to buy the DVDs and gather your own data!

The project blog contains many more images than are printed in this book, approximately 2,550 screenshots (curated from a total of around 11,000 images) to be released over the course of 2014-15. This may seem like a lot, but since the show's total length is 1,149,120 seconds, if multiplied by the standard video frame-rate of 29.97 frames/second the blog contains only 0.007% of the show's content. By comparison, that is equivalent to taking a ½-second clip from a feature film.

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Opposite: Detectives collaborate with a hacker (3, 63) Previous page: The first computer on the the show (1, 1)



A knife and a keyboard: the perfect summary of this project (13, 294)

- 19, 435 "I see where this is going, Lupes. Next thing you know she'll be friending you on Facebook."
- 20, 439 "It's not a blog, it's a forum for corrective social action."

"That place on the World Wide Web? – Actually, they don't call it that anymore."

"A lynch-mob sitting at computers typing things?"

"Words on the internet have consequences."

"We spend our days in front of computers."

"You ever read the internet, Mr. Cutter?"

- 20, 445 "Yogurt, coffee, ink cartridges, cupcakes."
 - "I kept some old photos on my backup hard-drive."
- 20, 446 "Where do the Juggalos hang out? In front of their computers, they're losers."

"The band's website doesn't give a clue what this knife in neck thing is about."

"He uses proxies to hide his IP address."

- 20, 451 "He was worried about his data being hacked. He told me he got an alert on his laptop. The hotel's WiFi wasn't properly firewalled."
 - "Homework? All she needed was Google!"
- 20, 456 "What were you doing? Exposing yourself to some creep on your webcam. He took a video-capture of it, now it's all over the net!"

19, 412 "The comments were posted on the internet anonymously. If you can subpoena the ISP..."

"No judge is going to allow something we just found on the internet."

"Teenage girls battering each other on internet videos."

- 19, 418 "I started a blog, just got a book contract."
- 19, 420 "Let's see a Street View.""I keep meticulous records of every IP address that drops a comment on my website."
- 19, 421 "We monitor his computer use very carefully.""Want to hear about what he wrote about them on their Wikipedia entry?"
- 19, 428 "There's a computer power brick but no computer."

 "Kernel based, implemented as a rootkit."
- 19, 429 "One thing for sure. Nowadays everything ends up on the web."
- 19, 431 "I found a FacePlace page she kept under another name."
- 19, 432 "The killer was looking back and forth from the screen to the number that he was carving into the bodies."

"Can I borrow your cellphone? It has the internet, right?"

You know we're living in the computer age?

- Police officer (season 1, episode 13)

In the fall of 1990, a television program about crime, police investigation, and criminal trials named *Law & Order* aired for the first time. The show eventually ended in 2010, tied with *Gunsmoke* for the longest-running live-action television show at 20 seasons and 456 episodes. With its unique (and consistent) style and trademark "dun-dun!" sound, *Law & Order* has generated several spin-offs and can likely be found playing at any hour of the day somewhere on cable.

Much has been written recently about how "binge watching" an entire season or even an entire show is changing our interaction with – and in some cases the making of – television.³ This new TV-watching paradigm is due in large part to Netflix's streaming service; around the same time it was launched, I started watching a lot of *Law & Order*. With so many episodes available in an easy-to-digest procedural format, I could just turn to the next episode in line and hit "play."

I began to take screenshots of oddities: moments where the show broke from its usual format into first-person or split-screen views, or frames of unexpected abstraction as the camera panned across a scene.⁴ But somewhere in all those procedurally-formatted murders, quips, investigations, interrogations, and trials I began noticing computers. At first they were oddities too (characters using computers in funny ways, interesting-looking fake applications or websites), but as many obsessive projects start, the more screenshots I took, the more I noticed computers.



A typical computer in the background of an office (1, 22)

In the summer of 2012, I received a commission from art and technology organization Rhizome, an affiliate of the New Museum in New York City, to more systematically document computers across the entire original *Law & Order* series. I purchased the 120-disc box set and began to record (almost) every computer from all 456 episodes. Now, a little more than a year later, nearly 11,000 screenshots have been gathered along with some related (and some not-so-related) data about the show. The project is presented in the form of a blog (computersonlawandorder. tumblr.com) and in the more curated form of this book.

After watching all 319 hours of the show (or the equivalent of about two straight months watching 40-hours a week, though that is not how I consumed it), I think *Law & Order* is an even more

- 17, 388 "This flyer was created on the defendant's computer."
- 17, 393 "Now I'm into leisure industry websites."
- 18, 394 "Is this your electronic signature?"
- 18, 395 "This was streamed from our office in Jersey City."
- 18, 396 "You'd need a telescope to read that."
 - "That's why he stole it by emailing it."
 - "Anyway, he can't even connect up a computer, you know?"
- 19, 399 "It's just rumors, of course. But you put them on your website? Of course, that's what the internet is for."
- 18, 400 "We ran Langdon's photo through facial recognition."
- 18, 402 "The doc's browsing history... Google search for New York City cyber cafes."
- 18, 404 "Brandon's on his webcam! He's webcasting from his room!"
 - "She told me to get off the computer and do my homework."
 - "I found a Google Map in his trash."
- 18, 408 "We don't intimidate or murder, no matter what you read on the internet."
- 18, 411 "I have a friend in the blogosphere."
- 19, 412 "Check out this email blast he got this morning."

29

15, 346 "Most of it's email nowadays. I'll get it printed out for you."

"I think it was an image from her cellphone."

"DeVries received it as an email attachment."

- 16, 357 "He spent hours online."
- 16, 359 "We analyzed Emily Newton's web history."

"He just got a new laptop yesterday."

- 16, 366 "I'm pretty sure I saw him using our courtesy computer around 7:30."
- 16, 369 "Payroll server logs corroborate the computer search for Dana Baker's info."

"I get 100 emails a day."

17, 373 "You better not be on the computer in there! No internet with the door closed!"

"She's an internet celebrity now."

"We were in Hartford at Molly's gymnastics meet and one of her friends had a cellphone with the internet on it."

"Computers aren't foolproof."

"On the World Wide Web?"

- 17, 381 "They put spyware on my computers."
- 17, 383 "I think it's in my Blackberry, let me get it."
- 17, 385 "It turns out Cantwell has five different email addresses."

interesting cultural artefact than I could have ever expected. The show forms a unique database of images and speech, and one that reflects the fascinations, fears, and biases of its time. *Law & Order*'s long run and its "ripped from the headlines" content makes it a useful lens with through which to look at a period of great political and economic change in the United States. In particular, the show coincides with a major cultural shift: the rise and eventual ubiquity of computers and networked technologies over a crucial 20-year period in technologal history.

Law & Order spans the emergence of the ever-present personal computer, the trajectory from specialized to mainstream internet use,⁶ the introduction of laptops and flatscreen monitors, and finally the mass adoption of internet-enabled smartphones.



The first computer turned on (1, 9)

Alongside the actual technology appearing onscreen, the show's content, ranging from casual conversations to crimes and crime-solving, reflects our fascination with and sometimes fears about technologies like BBS systems, email, online dating and social networking, webcams, privacy and hacking, facial recognition, and search engines.

While an investigation of the show could have taken many forms, as an artist interested in how technology shapes culture it made perfect sense to use *Law & Order* as a means to talk about how our relationship with computers has formed and changed over the last 20 years.⁷ The screenshots resulting from this project (along with other data, including web addresses used on the show, quotes about computers, and a list of "first appearances" – all included in this book) provide a rich data set through which there are many possible lines of investigation. One of the trajectories we can trace through the show is the transition of the computer from turned-off background prop, lending realism to



Clunky monitors slowly move to the front of the desk (5, 89)

- 13, 289 "If God had wanted man to have fair trials, he would have given the jury Pentium processors instead of prejudices."
- 13, 299 "The notes were printed on an HP DeskJet."
- 13, 301 "You get wireless internet on that, Sammy?"
- 14, 302 "I'd have to ask Mr. Computer."
- 14, 307 "Everything's on the internet."
- 14, 315 "Oh, it's not the games, it's the systems they're played on. Those things are just really fast computers.

 Anything with a speed of over 85,000 MTOPS, US Export Administration's worried the wrong people are gonna use the technology to build encryption machines or missile guidance systems."
- 14, 319 "Check out the links on that site."
- 14, 320 "We should check his emails. I bet it's all spam."
- 14, 322 "On the net. Everything's on the net."

 "This website gets 30,000 hits per day."
- 15, 330 "This is the homepage."
- 15, 338 "Look what I downloaded from the internet."
- 15, 340 "How do we counteract corrosive cultural forces like the internet?"
- 15, 343 "No computers?"
- 15, 346 "She's huge on the web."

- 11, 241 "You know you can get anything you need on the computer with Westlaw."
- 11, 249 "My detectives did some digging on the internet..."
- 11, 251 "Ok, we're going to try to trace the email."
- 11, 253 "Then her cousin Jeff convinced her to jump on the internet bandwagon. It was a disaster.""Boilerplate websites for public schools."
- 12, 256 "The feds monitor all my calls, read my email..."
- 12, 261 "Got it off eBay.""Simply posts information on the website. And lets the internet do the rest.""I met Emily online."
- 12, 268 "Hey, I haven't downloaded the files yet!"

 "Reason number 37 for me not to open my email."
- 12, 269 "I was here, on the computer."
- 12, 270 "Where'd you get these? We printed them off her laptop.""How do you defend that awful website or whatever it's called?"
- 13, 282 "Computers, don't you love them?"
- 13, 284 "I know somebody, he's a computer genius."
- 13, 288 "I can call an 800 number, I log into the internet."



Typical custom software made for the show, here depicting the first instance of the classic "zoom-and-enhance" (5, 102)

scenes in the workplace, to its current position as a necessary, always-networked, and constantly used tool.

The first computer on *Law & Order* appears nine minutes into the first episode of the show (see page 2). A rather small, dull-gray monitor sits on the also-dull-gray box of a computer. The keyboard rests on the desk in front and some kind of peripheral sits to the left. Exact details are difficult to identify. We see the computer as the camera quickly pans the room, obscured by motion blur and the graininess of the film stock.⁸ Alone, unused and tucked into the corner of the room, this is the state of computers for most of the first ten seasons of the show: a shared resource used only occasionally as needed, turned off more often than not, and dotted with Post-It notes left for other users. Often, these computers are shown on dedicated computer desks or tucked away in corners, below counters, or in other out-of-the-way places.



Laptops become harder to spot amongst cluttered desks (18, 411)

This reflection of banal details is something Law & Order excels at (whether intentionally or not) and stands in contrast with one of the show's spinoffs, Law & Order: SVU, which often depicts police station computers in a manner bordering on the sci-fi. Unlike the smart-boards and touch-based interaction of SVU (which is intended to suggest high-tech interactivity while being decidedly not, sporting instead clunky and simplified user interfaces with the veneer of corporate design), the original series accepts the realistic limitations of blue screens and keyboard-only input, and as a result is a much better representation of the average computer user in the early 1990s.

In fact, it isn't until nine episodes and 39 computers later that a machine is even turned on, and it isn't until season five that a computer appears on the front of someone's desk. Over the course of the show as we might expect, computers become more and more common, shifting from bulky desktops to laptops and flatscreen monitors. City employees look up records for detectives and DAs, forensics and computer experts are seen using high-

- "Talford emailed somebody named 'Doom Master."

 "She was talkin' internet this, internet that... I don't know much about it."
- 10, 219 "Real-time webcast... peepshows on the internet."

 "We were going to set up our own site on the web."

 "Pentium 3, 24-gig hard drive it's all state of the art stuff."
- 10, 221 "Sean said he had some ideas about the internet, and that he just wanted to take some time to figure out the next step."
 - "It seems they ran a Y2K compliance program a few weeks ago."
- 10, 226 "She had this one guy she was chatting up on the internet. She talked to me about email and chats and screen-names how am I supposed to know about that crap?"
 - "Check the settings for a T3 line."
 - "All my friends have been telling me to shop online it's great, don't worry about security."
 - "I'd say the kid's an internet addict."
- 10, 227 "We found them in the Computer Center."
- 11, 240 "Some computer billionaire."
- 11, 241 "I'll get you a printout."

- 8, 175 "Phone sex has been replaced by email sex? Who knew?""The guy who bought it installed an 8-gig hard-drive, threw out the old one."
- 8, 176 "Forensics says the letter is computer generated, printed on a garden-variety bubble jet."
- 8, 185 "Any idiot with a PC and a printer."
- 9, 193 "All he did was study or surf the web on my computer."
 - "Anybody can print this off the net."
- 9, 195 "Click on 'Utilities."
- 9, 197 "Computers crash, cars break down it happens."
- 9, 201 "I asked him, what did he think about buying stocks on the internet, he said it was for suckers."
- 10, 210 "Hagan was on an online conference to the Philippines. The whole thing was recorded by webcam."
- 10, 212 "Computer company from hell. I sent my kids' computer in to get fixed and they lost it.""I told you those gizmos were trouble."
- 10, 213 "The Rite Aid computer says the receipt was for toilet paper, toothpaste, and some cough medicine."
- 10, 215 "Oh man, weighs a ton! Check it out, could be a computer or something."

end software and even engaging in hacking, and computers dot the background with random programs open as if some important work had been interrupted. By the last two seasons, both detectives are regularly seen working on laptops across from each other and smartphones begin to make appearances.

This shift can be measured by counting the number of computers captured per season. The chart on the next page shows the computer counts across all 20 seasons along with a line tracking the average trend: a steady incline in the number of computers onscreen that bumps up briefly in the middle and skyrockets towards the end of the show's run.

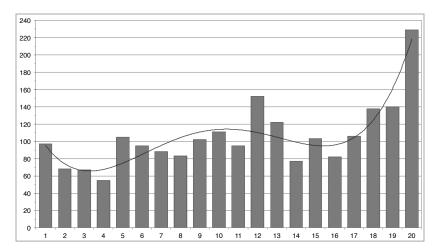
An overall rise in the count is to be expected as computers become more common throughout 1990s and early 2000s (the spike in the first season is likely the result of my overzealous capturing of images at the start of the project). Computer use transitioned in the late 1990s from a shared office tool to one of near constant use at work, and often at home as well. By 2002, more than



An ADA distractedly checking her email (18, 411)

half of Americans were online.¹⁰ Computers, the internet, and computer-related stories and crimes were on everyone's mind; this was reflected in the show's stories and as a bump in in the computer count.

The subsequent dip in the early-to-mid 2000s is perhaps the most interesting, and is likely the result of several factors. The first may be ubiquity: we all got used to having and using computers. Computers mediated many daily tasks and the internet matured, giving us a feeling of comfort with technologies like email and instant messaging. Another possible reason is a feeling of doubt about the role computers would play as the result of the dot-com bubble, when online retailers went under and technology stocks dropped. While not seen as clearly in the screenshots themselves, these sentiments are reflected in the show's storylines. In episode 253 (2001), one character sums up this feeling: "Then her cousin Jeff convinced her to jump on the internet bandwagon. It was a disaster."



Computer count by season with the average count

- 6, 113 "Me, I used the computer once. Lost 27 straight games of solitaire."
- 6, 115 "Mega carnage, piece of crap CD-ROM thrasher."
- 6, 116 "AOL, Compuserve, Prodigy, what?"

"When I first started on the internet, there was nobody out there."

"Don't believe everything you read on the computer screen."

- 7, 150 "I made it up on my computer for the kid."
- 8, 158 "Saturday night was very busy. We had a reading of a cyber-novel by Karten van Dusen."
- 8, 162 "Type in what we're looking for: 'eagle graphics' and the motto 'audentes fortuna iuvat.' Search engine does the rest."

"Let's surf the net!"

"Nice computer you got there. Is that where you keep your virtual clubhouse?"

"I'm ready. Do you know of any websites where I can find out more?"

- 8, 169 "No address book, no appointment book. They're probably all on his hard drive."
- 8, 173 "You gotta be some kind of computer whiz to do this erasing trick?"

"She knows all the software."

QUOTES ABOUT COMPUTERS

Listed in order of appearance

1, 13	"You know we're living in the computer age?"
2, 29	"Take lotion papercuts: no computers before 1974."
2, 42	"Everything's computers now."
4, 82	"I use a laptop computer to write a thesis, I use tools to fix my VCR and my toaster."
4, 84	"Your victim had a 486 machine, state of the art."
4, 85	"We've got all the computer geeks pulling yellows on a kid named Sid."
4, 85	"There are twelve people in that room, not twelve computers."
5, 93	"He blanked the screen!"
5, 97	"My son wants a computer."
5, 98	"Dave was a lifer, started here right out of grad school before we got computers."
5, 108	"My 14-year-old plays spin the bottle on the computer. I'm telling you, anything's possible."
5, 109	"My kid tells me to computerize."



One of many Apple products in the final seasons (18, 396)

But new technologies breed new fascinations and anxieties, and this is a likely cause for the sharp increase in the number of computers in the final seasons. With the rise of mobile computing, characters start using smartphones and laptops on a regular basis, and engage more with social networking sites (*Law & Order*'s fake Facebook is called Faceplace, one of few domains used on the show that NBC isn't just sitting on).¹¹

There is a second possible reason for this spike: Apple became a sponsor of many NBC shows.¹² No longer did we see nameless beige computers recycled from previous episodes or devices with their brand names covered. Instead, fancy new computers proliferated, clearly identifiable as Apple products (see above). This consistent shift to a high-end brand is out of character for a gritty crime drama, but in the end perhaps says more about how television is made than it does about computers.

Now 18 months and hundreds of episodes later, I realize this isn't a project about *Law & Order* at all – the show is one of



Law & Order's thebaronmuchhumpin.com (8, 175)

many possible vehicles for exploring our culture's relationship to technology. Detailed accounts have been written on mainframes and cloud computing, Facebook and online commerce, but there are no books about something as humble as the "computer desk." Formerly ubiquitous, fake-wood melamine furniture with keyboard tray and, depending on the vintage, a box of disks or built-in CD rack, is an object mostly lost to the past yet gets a rich historical document with *Law & Order*. It is difficult to pin down exactly what these images show us, and that's something I find satisfying. If we want to dig for these kind of anthropological details, we are unlikely to find them anywhere but media of the period. In the background of scenes, or embedded in the dialog or fashion, I look forward to projects that nibble at the profound or kitschy that lies waiting to be unearthed.



13, 301	First use of "Googled" as a verb
15, 346	First mention of camera phones
17, 372	First prosecutors using a computer in the court room, first mention of blogs
17, 373	First mention of "social networking" and WiFi
17, 378	First laptop in a squad car
17, 384	First Gmail user, though logo is removed
18, 400	First judge with a computer on the bench
19, 417	First thumb-drive
19, 423	First mention of Nigerian email scams
19, 429	First mention of iPhone
19, 431	First use of Photoshop and "photoshopped" as a verb



8, 175	First instance of cyber-stalking
9, 188	First flatscreen monitor
10, 210	First Mac (above)
10, 219	First direct mention of internet pornography, first mention of chatrooms
10, 222	First mention of the term "dotcom"
10, 226	First scanner, first mention of "logging on"
11, 238	First digitized mugshot
12, 257	First Blackberry (opposite page), first computer running Excel
12, 261	First mention of online auctions
12, 268	First mention of spyware
13, 288	First mention of online gambling

FAKE WEBSITES

A list of every web address that appears on the show, in order of appearance; an * denotes the domain is owned by NBC or General Electric, its former parent company

thebaronmuchhumpin.com toomail.net* HealthRoad2000.com* manhattanhears.org* OldBookworm.com YouLenz.com* upyourbutt.net* zeroenergyfootprint.com* getdonner.com* searchling.org* covertcops.com* unraptured.com* hiphopnations.com* paparazziberry.com enditallnow.com* FacePlace.com zoltz.com extremetruth.net* snakeboy.net* forummail.com b-frendz.com* flashposse.net* scumwatch.com* citysmear.com* toomail.net* therealgore.com* animetothemax.com* gbc.bz bootyboys.bz urbanexcitement.com* deathjunky.com* me.com

mootscountdown.com

20

noexecutions.org*

FIRSTS ON THE SHOW

A list of firsts in order of appearance

1, 9	First computer turned on, first computer interaction onscreen
1, 14	First personal computer at home
1, 15	First detective using a computer
1, 22	First crime involving computers
2, 24	First dot-matrix printer
2, 32	First lawyer using a computer
2, 34	First laptop (opposite page)
2, 35	First judge with a computer
2, 36	First computerized cash register
2, 38	First criminal using a computer
3, 34	First instance of hacking by police, first mention of computer passwords
3, 49	First graphics program
3, 63	First mention of BBS and use of the word "download"
5, 89	First computer at the front of desk
5, 92	First person with two computers on one desk



5, 100	First use of Microsoft Word
5, 102	First full color screen, computerized video, and first use of "zoom-and-enhance"
5, 105	First 3D model, first digital photograph
6, 113	First mention of email, first mention of cyberspace
6, 125	First desktop printer
6, 127	First tower, first mouse
7, 150	First computer in courtroom
7, 155	First inkjet printer
7, 157	First computer speakers, first confirmed CD drive