



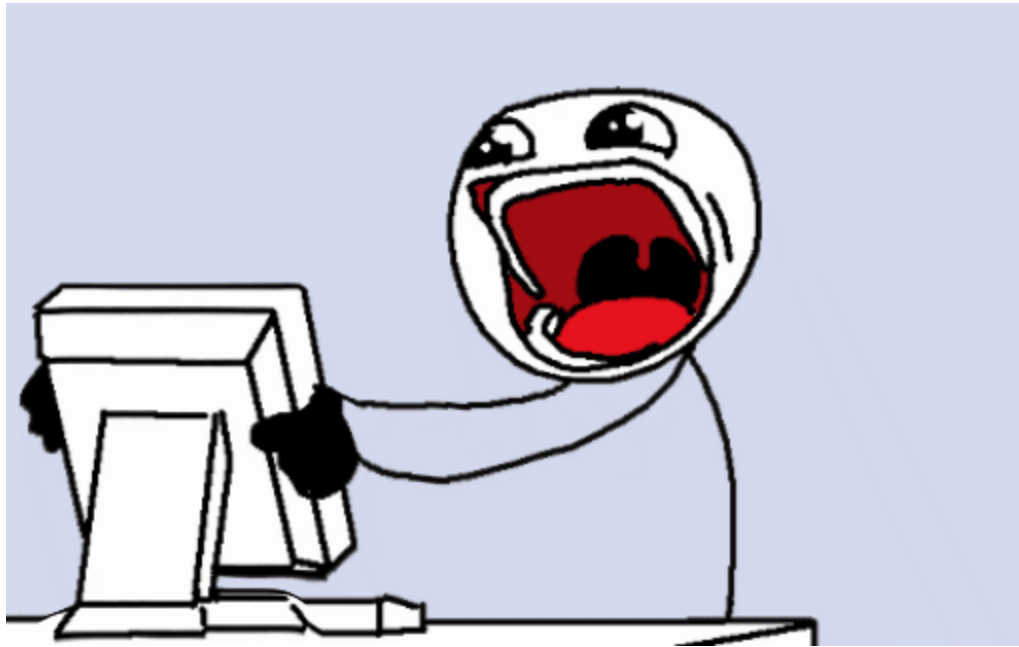
# Turn your radio on

## London Calling

# Class schedule

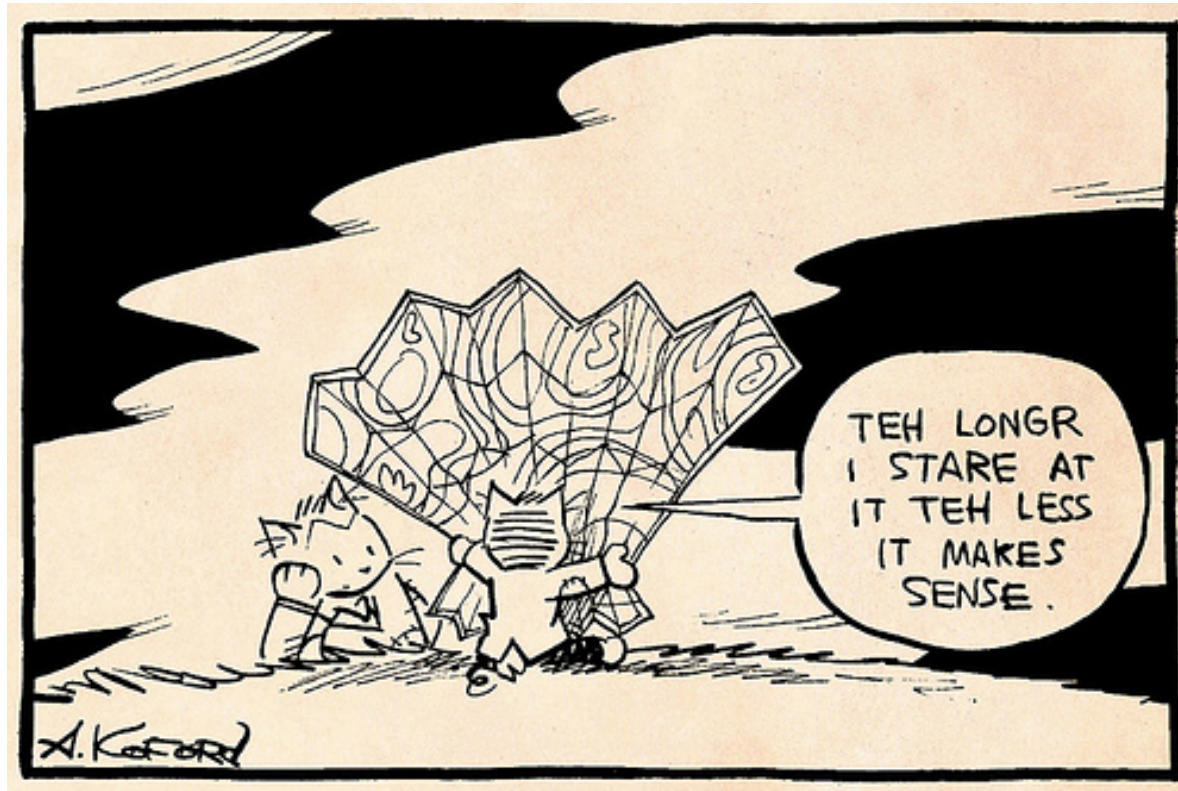
Class	Theme
3/17	Introduction
3/31	<b>London calling</b>
4/7	Local radio with Tom Ingrassia
4/14	Video killed the radio star
4/21	What's next?

- Readings and presentations are available at [queenlake.com/wise/wise-2016/radio-d12](http://queenlake.com/wise/wise-2016/radio-d12).
- Course slides will be available within 15 minutes of the start of class.



# There will be technical problems

We'll deal with them as they come along



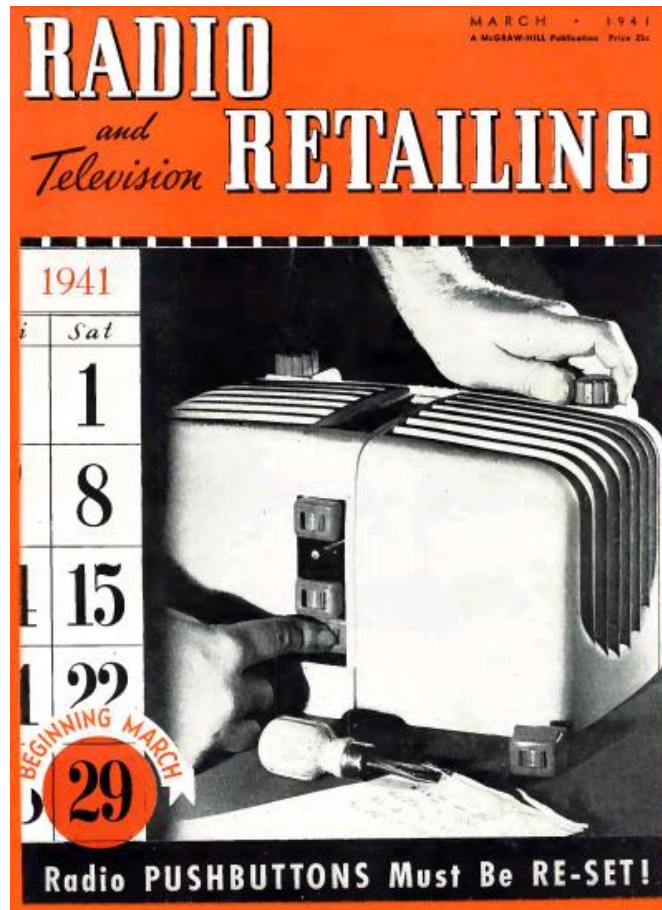
# Questions?



# Repeat after me

- One hen
- Two ducks
- Three squawking geese
- Four limerick oysters
- Five corpulent porpoises
- Six pair of Don Alverso's tweezers
- Seven thousand Macedonians in full battle array
- Eight brass monkeys from the ancient sacred crypts of Egypt
- Nine sympathetic, apathetic, diabetic old men on roller skates with a marked propensity towards procrastination and sloth
- Ten lyrical, spherical diabolical denizens of the deep who hall stall around the corner of the quo of the quay of the queasy, all at the same time.





## This week in history

MARCH 29, 1941: RADIO STATIONS SHUFFLE FREQUENCIES ON 'MOVING DAY'



## Latin with a Finnish accent

[Praesidens Niinistö Moscuam visit](#)



What did you hear on the radio today?



# radio-locator



find US radio stations by location



city/zip Worcester

state MA

go

find by call sign

go

**MONETIZE YOUR  
ONLINE STREAM**

...and earn more  
revenue  
for your station!



Site Navigation:

[home page](#)

[city search](#)

[format search](#)

[u.s. state search](#)

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[international search](#)

[advanced search](#)

[vacant frequencies](#)

There are 22 radio stations within close listening range of  
Worcester, Massachusetts. (42° 16' 08" N, 71° 48' 14" W)

**Info:** Click to get more information about a station or to submit a change.

**Bitcaster:** Indicates that the station broadcasts its audio on the Internet.

**Distances** show the distance between the station and your location in Worcester, Massachusetts.

[Find unused frequencies](#) in Worcester, Massachusetts.

	Call Sign	Freq.	Dist/Signal	City	School	Format
	<a href="#">WCHC</a>	88.1 FM	2.2 mi.	<a href="#">Worcester, MA</a>	College of the Holy Cross	College
	<a href="#">WFCR</a>	88.5 FM	32.3 mi.	<a href="#">Amherst, MA</a>	University of Massachusetts	Public Radio
	<a href="#">WGBH</a>	89.7 FM	35.5 mi.	<a href="#">Boston, MA</a>		Public Radio
	<a href="#">WICN</a>	90.5 FM	5.4 mi.	<a href="#">Worcester, MA</a>		Jazz
	<a href="#">WCUW</a>	91.3 FM	0.5 mi.	<a href="#">Worcester, MA</a>		Variety
	<a href="#">WBPR</a>	91.9 FM	5.4 mi.	<a href="#">Worcester, MA</a>	University of Massachusetts - Boston	Adult Album Alternative
	<a href="#">WJMN</a>	94.5 FM	29.7 mi.	<a href="#">Boston, MA</a>		Hip Hop
	<a href="#">W235AV (WTAG)</a>	94.9 FM	5.8 mi.	<a href="#">Tatnuck, MA</a>		News/Talk
	<a href="#">WSRS</a>	96.1 FM	5.8 mi.	<a href="#">Worcester, MA</a>		Adult Contemporary
	<a href="#">WBZ</a>	98.5 FM	29.7 mi.	<a href="#">Boston, MA</a>		Sports
	<a href="#">WWFX</a>	100.1 FM	5.0 mi.	<a href="#">Southbridge, MA</a>		Classic Hits
	<a href="#">WKLB</a>	102.5 FM	29.1 mi.	<a href="#">Waltham, MA</a>		Country
	<a href="#">WODS</a>	103.3 FM	29.7 mi.	<a href="#">Boston, MA</a>		Top-40
	<a href="#">WXLO</a>	104.5 FM	16.5 mi.	<a href="#">Fitchburg, MA</a>		Hot AC
	<a href="#">WAAF</a>	107.3 FM	6.4 mi.	<a href="#">Westborough, MA</a>		
	<a href="#">WTAG</a>	580 AM	4.8 mi.	<a href="#">Worcester, MA</a>		
	<a href="#">WVNE</a>	760 AM	14.1 mi.	<a href="#">Leicester, MA</a>		
	<a href="#">WCRN</a>	830 AM	6.7 mi.	<a href="#">Worcester, MA</a>		
	<a href="#">WAMG</a>	890 AM	19.4 mi.	<a href="#">Dedham, MA</a>		
	<a href="#">WNEB</a>	1230 AM	1.0 mi.	<a href="#">Worcester, MA</a>		
	<a href="#">WORC</a>	1310 AM	3.3 mi.	<a href="#">Worcester, MA</a>		
	<a href="#">WVEI</a>	1440 AM	2.6 mi.	<a href="#">Worcester, MA</a>		Sports

Rock  
(Ghanian)  
102.3

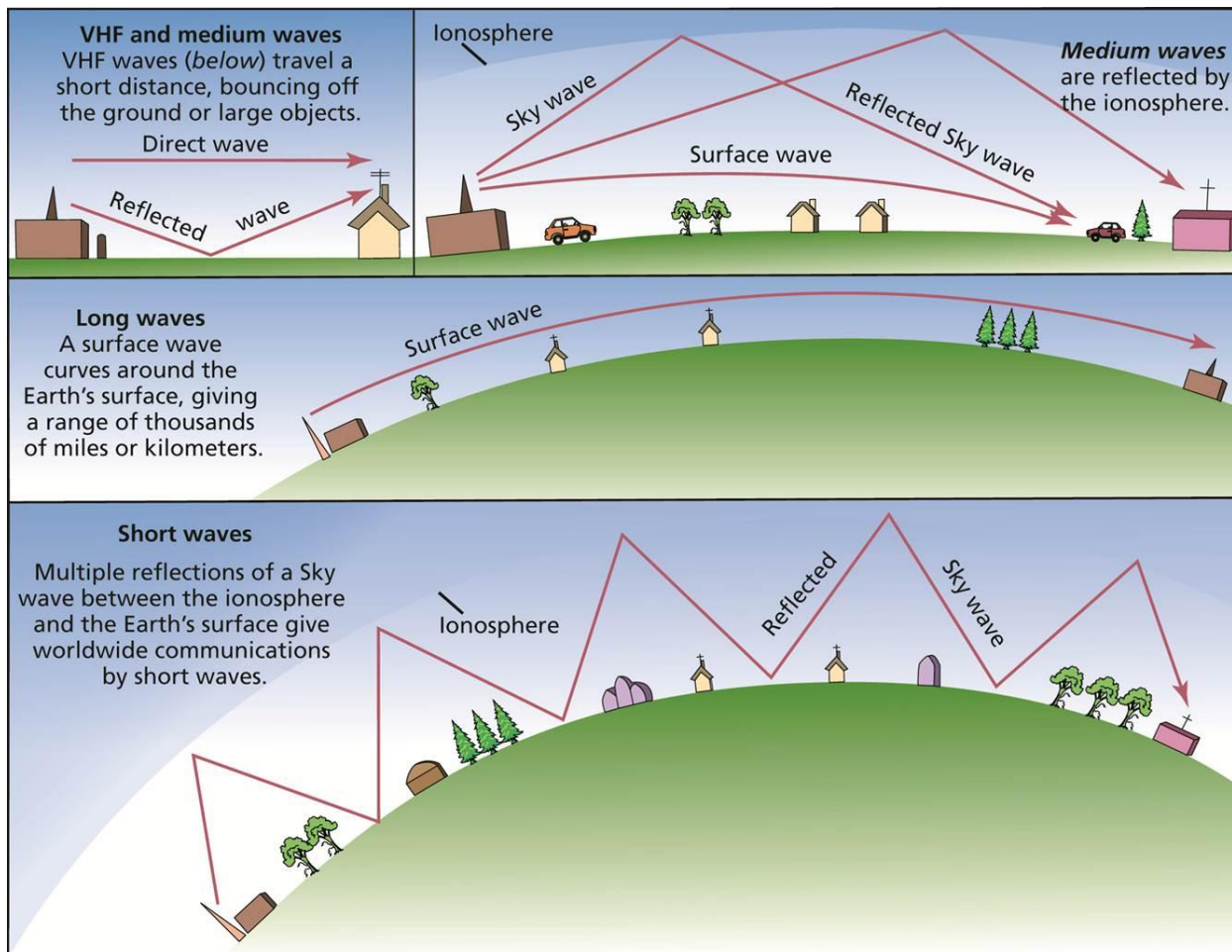
New Visions  
(Ghanian)  
103.5

Flava 105.5

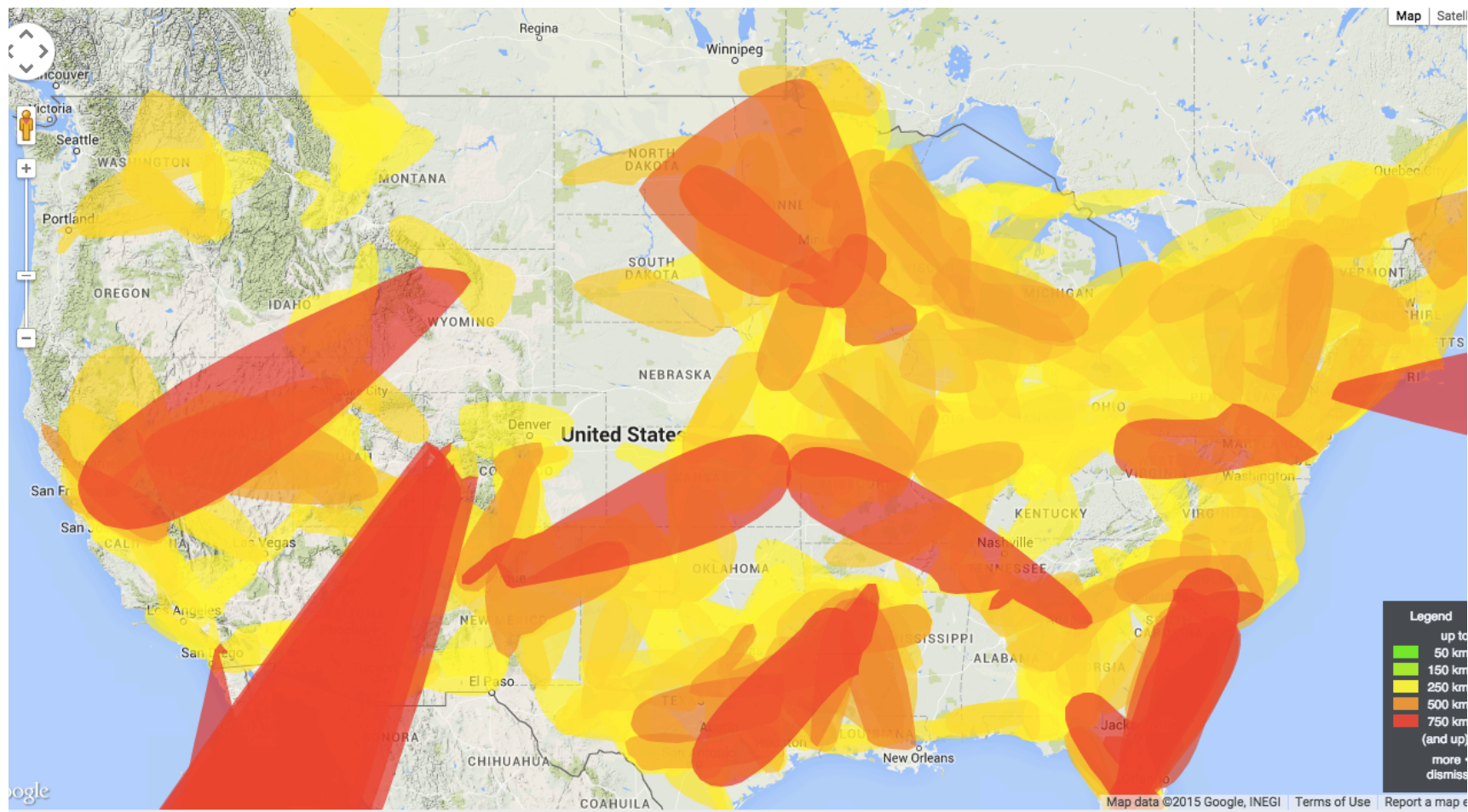
Word  
(Ghanian/Caribbean)  
102.9







# Radio and the atmosphere



# Tropospheric refraction of radio waves

Doc Searls Weblog - [Fun with tropo](#)

# THE ELECTROMAGNETIC SPECTRUM

THESE WAVES TRAVEL THROUGH THE ELECTROMAGNETIC FIELD. THEY WERE FORMERLY CARRIED BY THE AETHER, WHICH WAS DECOMMISSIONED IN 1897 DUE TO BUDGET CUTS.

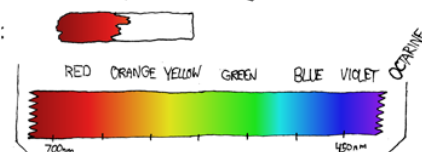
## ABSORPTION SPECTRA:

HYDROGEN:

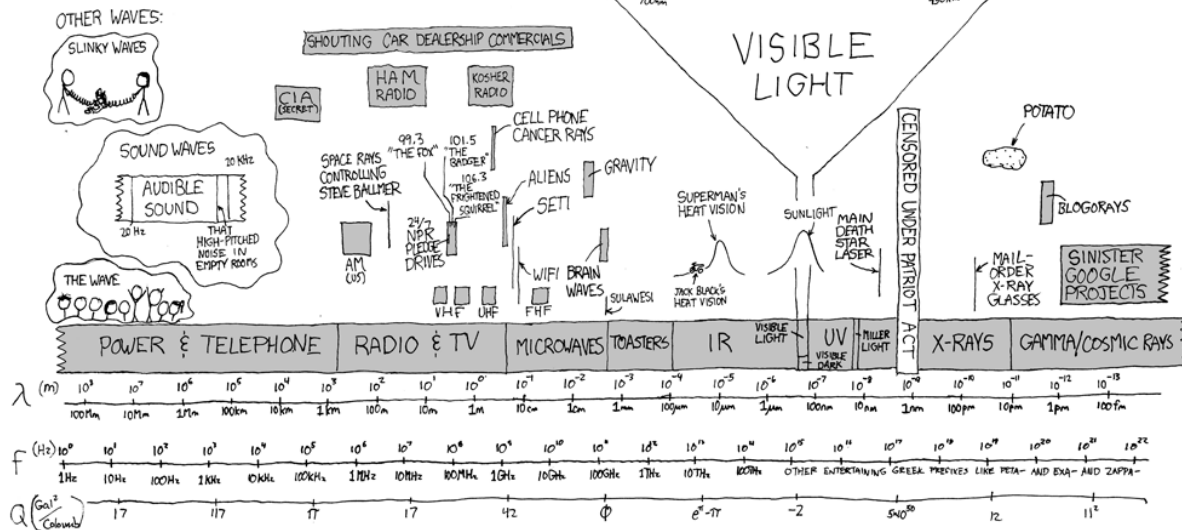
HELIUM:

DEPENDS®:

TAMPAX®:



## VISIBLE LIGHT

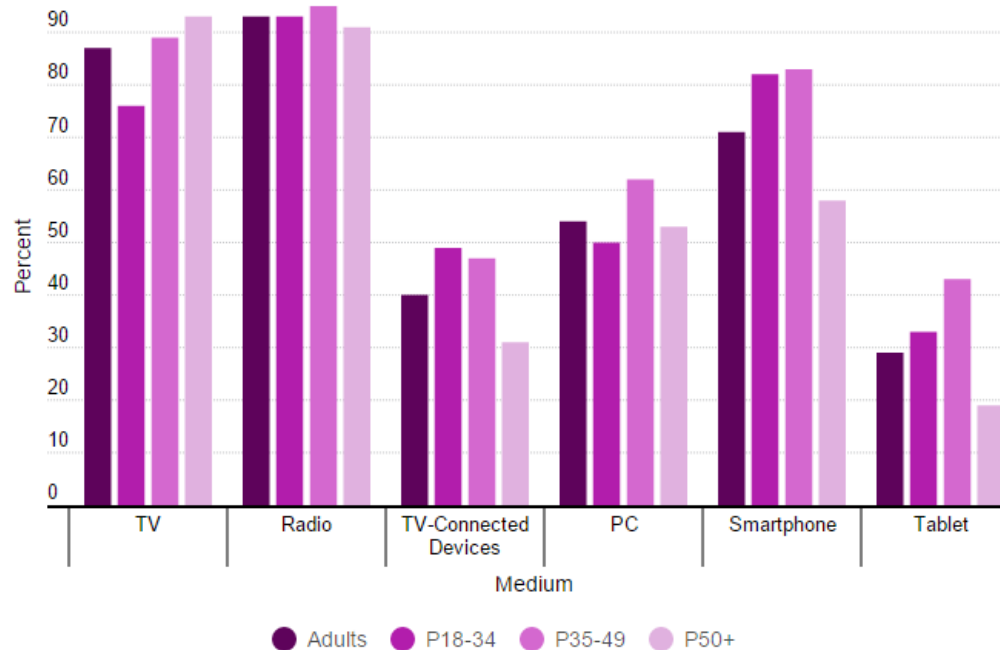


## Where radio lives

# Who listens to radio?

MORE THAN 90% OF ADULTS LISTEN TO RADIO EACH WEEK

Weekly reach (% of the population)



Source: Nielsen Comparable Metrics Report Q2 2015.

## #10 Boston

February 2016 Portable People Meter 6+ Mon-Sun, 6a-12mid (Updated: 03-15-16)  
12+ Population: 4,192,800 (Black: 309,800) (Hispanic: 406,100) Surveyed: Continuously

Station	Dec 15	Hol 15	Jan 16	Feb 16	Format	Owner
WROR-FM	6.2	5.5	7.2	7.2	Classic Hits	Greater Media
WXKS-FM	6.6	5.8	7.1	7.0	CHR	iHeartMedia
WMJX-FM	8.0	14.8	6.3	6.5	AC	Greater Media
WBZ-AM	5.7	5.5	6.4	6.2	News/Talk	CBS Radio
WEEI-FM	5.5	4.7	5.9	4.9	Sports	Entercom
WBUR-FM	4.4	4.1	N/A	4.7	News/Talk	Boston University
WBZ-FM	6.7	5.9	6.8	4.7	Sports	CBS Radio
WZLX-FM	3.6	3.2	3.9	4.4	Classic Rock	CBS Radio
WBMX-FM	3.5	2.7	3.8	4.3	Hot AC	CBS Radio
WKLB-FM	5.0	3.3	3.7	4.0	Country	Greater Media
WGBH-FM	2.5	2.9	N/A	3.8	News/Talk	WGBH Educational Foundation
WODS-FM	3.4	3.3	3.9	3.8	CHR	CBS Radio
WBQT-FM	3.3	3.3	3.7	3.7	Rhythmic AC	Greater Media
WBOS-FM	2.6	2.5	2.4	2.7	Alternative	Greater Media
WJMN-FM	2.6	2.2	2.4	2.5	Rhythmic CHR	iHeartMedia
WAAF-FM	2.4	2.4	2.3	2.3	Rock	Entercom
WCRB-FM	1.8	1.6	N/A	2.3	Classical	WGBH Educational Foundation

## Radio in Boston

**CHR = Contemporary Hit Radio**

**AC = Adult Contemporary**

**Hot AC = Hot Adult Contemporary**

**Rhythmic AC = Danceable**



## #117 Worcester

Fall 2015 Nielsen Audio Quarterly Report 12+ Mon-Sun, 6a-12mid (Updated: 01-14-16)  
 12+ Population: 441,900 (Black: 24,200) (Hispanic: 41,700) Surveyed: Spring/Fall

Station	Spr 14	Fall 14	Spr 15	Fall 15	Format	Owner
WAAF-FM	N/A	N/A	6.8	8.0	Rock	Entercom
WSRS-FM	10.5	7.3	9.2	7.9	AC	iHeartMedia
WTAG-AM	4.5	5.0	4.4	5.7	News/Talk	iHeartMedia
WXLO-FM	5.7	5.1	6.2	4.6	Hot AC	Cumulus Media
WWFX-FM	3.4	3.6	3.2	2.5	Classic Hits	Cumulus Media
WEEI-FM	1.4	0.8	2.0	1.9	Sports	Entercom
WORC-FM	1.0	1.6	3.6	1.7	Country	Cumulus Media
WRKO-AM	0.6	0.6	0.6	N/A	Talk	Entercom

**Totals are Persons 12+, Mon-Sun, 6am-midnight**

# Meanwhile, here's Worcester



# Douglas Adams

(author, *Hitchhiker's Guide to the Galaxy*):

- "I've come up with a set of rules that describe our reactions to technologies:
  1. Anything that is **in the world when you're born** is normal and ordinary and is just a natural part of the way the world works.
  2. Anything that's **invented between when you're fifteen and thirty-five** is new and exciting and revolutionary and you can probably get a career in it.
  3. **Anything invented after you're thirty-five** is against the natural order of things.

Radio was once new and disruptive

Radio advertising promised to redeem the farmer by raising his social status to equal that of the city dweller

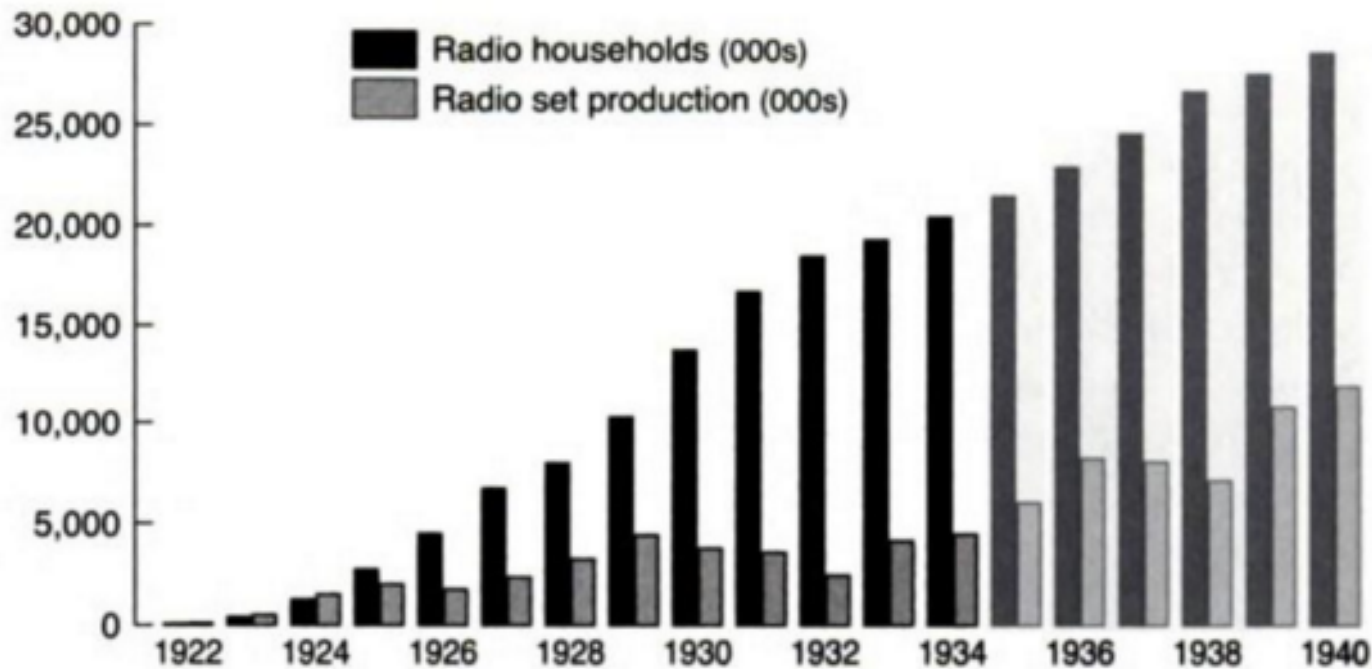
"What these people need is radio."

Patnode R. 'What These People Need Is Radio': New Technology, the Press, and Otherness in 1920s America. *Technology And Culture* [serial online]. 2003;(2):285. Available from: Project MUSE, Ipswich, MA.

The radio telephone, it seems to me, is primarily an invention for the benefit of women. Its greatest achievement is banishing isolation. . . . Isolation, whether mental or geographical, has been the cause of much of woman's restlessness and has done more to retard her progress than any other one factor. . . . I am sure the radiophone will assume a social significance which women will be quick to grasp and employ to their own advantage.<sup>42</sup>

## Radio for the Housekeeper

**Radio Voices: American Broadcasting, 1922-1952**

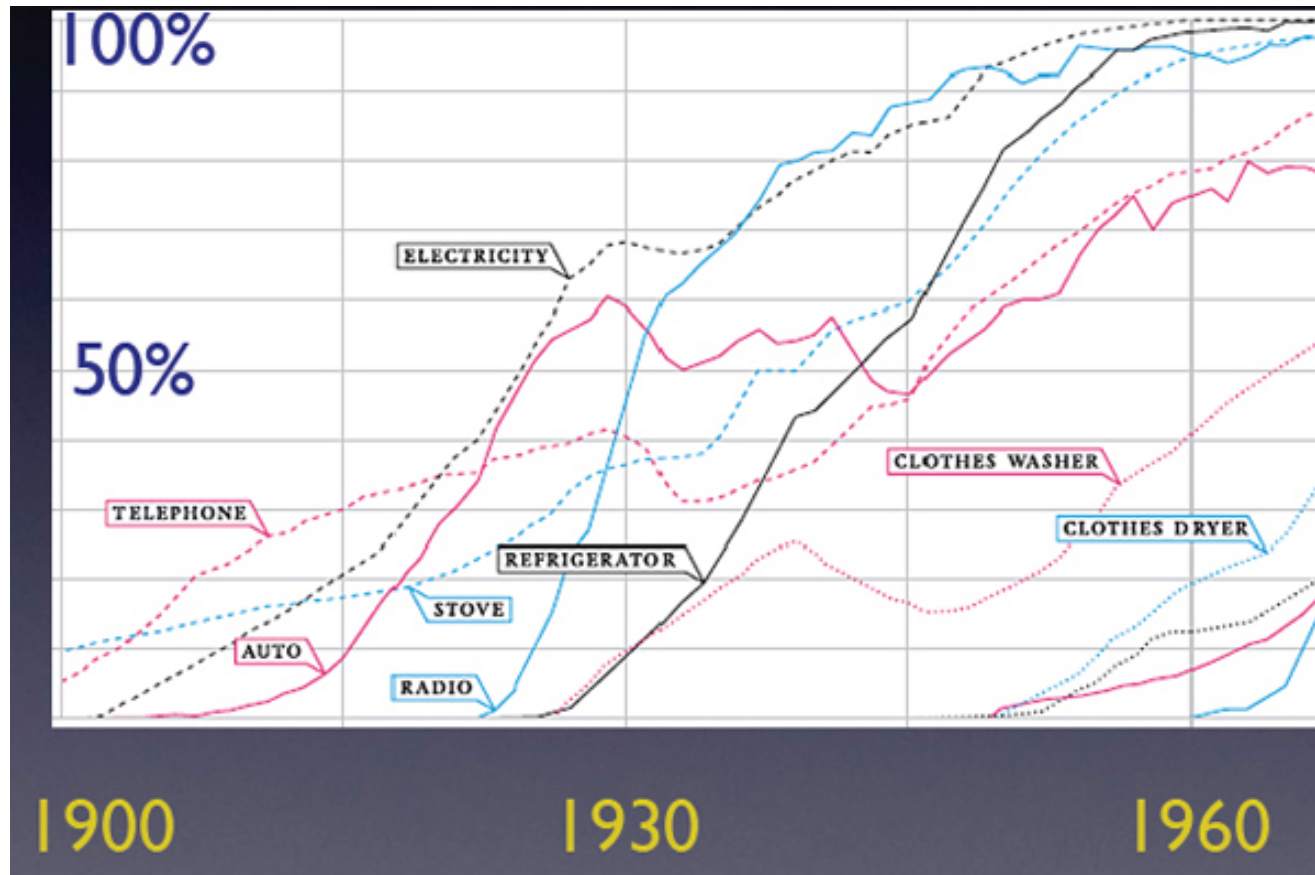


*Figure 1. Radio Households and Set Production, 1922–1940.*

*Source: Graph constructed from data in Historical Statistics of the United States, 1:796.*

**By 1940, 80% of American households had a radio**

**Source: Fireside Politics: Radio and Political Culture in the United States, 1920-1940**



# Radio becomes an essential part of the home

The Pace of Technology Adoption is Speeding Up





# It only took us 90 years

Telemedicine Predicted in 1925



**Fall Business Wanted?**  
 Advertise in Tomorrow's, Wednesday's, Thursday's and Friday's Globe. Read the ads in the Globe every day.

# The Boston Daily Globe

**Want Advertisements**  
 To Buy, Sell, Hire or Rent anything, advertise in the Globe's Want Columns. Use the Daily Globe—Use the Sunday Globe.

Published as second class mail matter at Boston, Mass., under the act of March 3, 1879, authorized for mailing at special rate of postage provided for in Act of October 3, 1917. Copyright, 1938, by The Boston Newspapers Co.

**BOSTON, MONDAY MORNING, OCTOBER 31, 1938—EIGHTEEN PAGES (2) TWO CENTS**

## RADIO PLAY TERRIFIES NATION

### The Capital Parade

Lehman Expects Poletti Victory

By JOSEPH ALSOP and ROBERT KINTNER

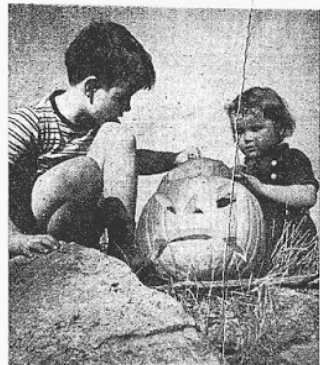
WASHINGTON, Oct. 30.—In the excitement of the New York campaign, the meaning of Herbert Lehman's price for running again has escaped general attention. His public contract with the worried New York Democrats called only for Charles Poletti's nomination as Lieutenant Governor. But his private expectation is that Poletti will also be his successor when the time comes.

Tom Dewey may steal the great inheritance, but, for the present, young Poletti is the acknowledged heir apparent of the Governor of New York. And that fact presents a puzzle of considerable national significance. Lehman's dislike and distrust of the President and his New Dealers, and the heavy way in which the White House returns



POLETTI

### READY FOR HALLOWEEN



BILLY DINGWELL and LEE GRIFFIN  
 Winchester pair proud of their "punkin" lantern.

### Police, Youth Groups Plan Safer and Saner Halloween

Indoor Parties to Supplant Doorbell Ringing, False Alarms, Rowdyism

### 3 FIRES SET IN SO. END HOTEL

52 Guests, Employees Held in Darkness as Police Hunt Incendiary

Fifty-two guests and all employees were held virtual prisoners behind the locked doors of Hotel LaSalle, South End, for four hours last night while police hunted through the rooms and halls of the darkened building for a firebug.

Three fires were set on different floors of the hotel and the main electric light line into the building was put out of commission between 7:30 and 8:15. At 11 o'clock the hotel was still in darkness, with guests and hotel employees huddled in groups in the lobby and first-floor reception rooms.

Electric light service was restored before midnight.

Firebug Hunt

Continued on Page 18

### PATROL WAGON, AUTO CRASH



TEN PERSONS WERE INJURED ON MURDOCK ST., BRIGHTON.

### FAIL TO CLAIM BLUENOSE CUP

Trophy Is Still at Home for Little Wanderers

### POLICE, BRIDAL AUTOS IN CRASH

Eight Hurt at Brighton, Four Killed Elsewhere

### Mystery Veils Fatal Injuries To Wife of Research Worker

Married Daughter of M.I.T. Professor Is Found Near Chicago Home, Clad Only in Pajamas

### Mars Invasion Thought Real

Hysteria Grips Folk Listening In Late

Many Fear World Coming to End

NEW YORK, Oct. 30 (A. P.)—Hysteria among radio listeners throughout the nation and actual panicky evacuations from sections of the Metropolitan area resulted from a too-realistic radio broadcast tonight describing a fictitious and devastating visitation of strange men from Mars.

Excited and weeping persons all over the country swamped newspaper and police switchboards with the question: "Is it true?"

It was purely a figment of H. G. Wells' imagination with some extra flourishes of radio dramatization by Orson Welles. It was broadcast by the Columbia Broadcasting System.

But the anxiety was immeasurable. The broadcast was an adaptation of Wells' "War of the Worlds" in which meteors and gas from

## The War of the Worlds







# This is London –Edward R. Murrow







## The Goon Show – What time is it, Eccles?

From left, Spike Milligan (Eccles), Harry Secombe, and Peter Sellers (Bluebottle)

# Alistair Cooke's 500<sup>th</sup> Letter from American





## WBCN Air Check 1971

With Charles Laquidara, Danny Schechter, and a cast of tens.



Thank you for voting  
*"Motown Tom"* Best Radio Personality

2014 READERS' CHOICE  
 WCVB  
 WCVB

Listen to  
*"The Jukebox of Motown"*  
 every Tuesday morning  
 from 9 am to noon on WCUW 91.3FM  
 Community Radio Serving Central Massachusetts.  
 Streaming Live Online at [www.wcuw.org](http://www.wcuw.org)

*"The Jukebox"* airs  
 Monday through Friday from  
 9 am to noon — with a  
 different host/format each day.

COMMUNITY RADIO  
 WCUW91.3FM  
 EST. 1993  
 WORCESTER  
 www.wcuw.org

# What's next

**My brain hurts!**



# Questions?