

# Television



Information Technology and Social Life

Feb. 14, 2005

Sarnoff goes on to become president of RCA 1921; starts NBC in 1926 - has vision of television for future

Armstrong - develops FM (frequency modulation); would require replacement of all AM systems. RCA originally not interested, so Armstrong continues on his own. Later Sarnoff offers Armstrong to sell him the FM licenses, but he refuses. FM becomes the audio technology of TV, but Sarnoff changes one specification, deeming all of Armstrong's transmitters obsolete. Amidst legal action against the large company, Armstrong commits suicide. Later, his wife wins all his patent suits.

Important to note - radio was conceived as wireless telegraph, sending messages point to point; later audio; then later emerged idea of broadcasting.

Armstrong, basically forgotten, DeForest lauded as father of radio. No threat to Sarnoff.



## Raymond Williams

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- 1921-1988
- Welsh academic, professor at Cambridge
- Pioneered field of cultural studies
- Interested in intersection of language, literature, and society
- Television: Technology and Cultural Form - 1974
- Concept of flow - primary organizing principle of TV, the fluid combination of program segments, commercials, and other materials that makes up the experience of watching television. More important than the idea of a unitary program.



## Versions of Cause and Effect

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- **Two broad classes of opinion**
  - Technology is in effect accidental, consequences are also accidental - technological determinism
  - Significance lies in uses, which are held to be symptomatic of some order of society or some qualities of human nature which are otherwise determined - symptomatic technology
- **Williams saw an alternative approach**
  - restore intention to the R&D process (in technological determinism)
  - purposes and practices would be seen as direct (in symptomatic technology)



## Social History of Television

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- Television - complex of inventions and developments in electricity, telegraphy, photography, motion pictures, radio
- Advantages of electric power in 1800s were closely related to the new industrial needs for mobility and rapid controllable conversion
- Development of railways and industrial system created need for telegraphy
- Still photography developed as a need for newspapers to capture “photographed reality.”
- Motion pictures initially applied as “sideshow.” It was not until a commercial system surrounded it that they gained an established form.
- “all were foreseen...before the crucial components of the developed system had been discovered and refined.”
- Based on long history of capital accumulation and working technical achievements; communication systems were intrinsic outcomes



## Social Uses of Television

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- “A need which corresponds with the priorities of the real decision-making groups will, obviously, more quickly attract the investment of resources and the official permission, approval or encouragement on which a working technology, as distinct from available technical devices, depends.”
- Resulting from military and commercial environment
- Point-to-point communication goals later exceeded by need for broadcasting
- Transmission of news and background-response to a political need and political crisis.
- Also social need and social crisis - increased awareness of mobility and change - as “lived experiences”

Press-origination of political need for information

Photo - in mobility; provided connections, links to past



## Social Uses of Television

- Changing idea of “mass”; broadcasting better captures idea of communicating messages to individual homes
- Isolated inventions were formed into systems based on the efforts of corporations
- “Systems primarily devised for transmission and reception as abstract processes, with little or no definition of preceding content.”
- mobile privatization - on the one hand, need for mobility, on the other, self-sufficient family home (contradictory tendencies)
- Dispersal of extended families and new kinds of social organizations
- Adapted to television as inferior technology to cinema - value of “general intake”
- Economic models; licensing; commercial sponsorship, then advertising

### Mass - meaning mob, then large numbers

movement to suburbs; required news from outside

Content as byproduct of technology - “color programs” designed to sell color sets.  
Cheaper to broadcast live or record events; new programming was expensive

Stations licensed by FCC; limited spectrum; rules on content.

Current model - local stations transmit/develop some local content/networks provide content; cable companies contract with networks for content.

Why did it take so long for cellular phones? FCC and spectrum;  
existing systems/infrastructure; later growth of digital technologies. -  
concept of cell phone 1947

What about picture phones?