

# Next Generation Infrastructure and Next Generation Media Services

Steve Wildman  
Quello Center  
Michigan State University

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# Basic Focus

- Implications of an ongoing shift toward an intelligent, server-based infrastructure for media distribution for the nature of media services
- Will primarily examine video services as representative of media in general

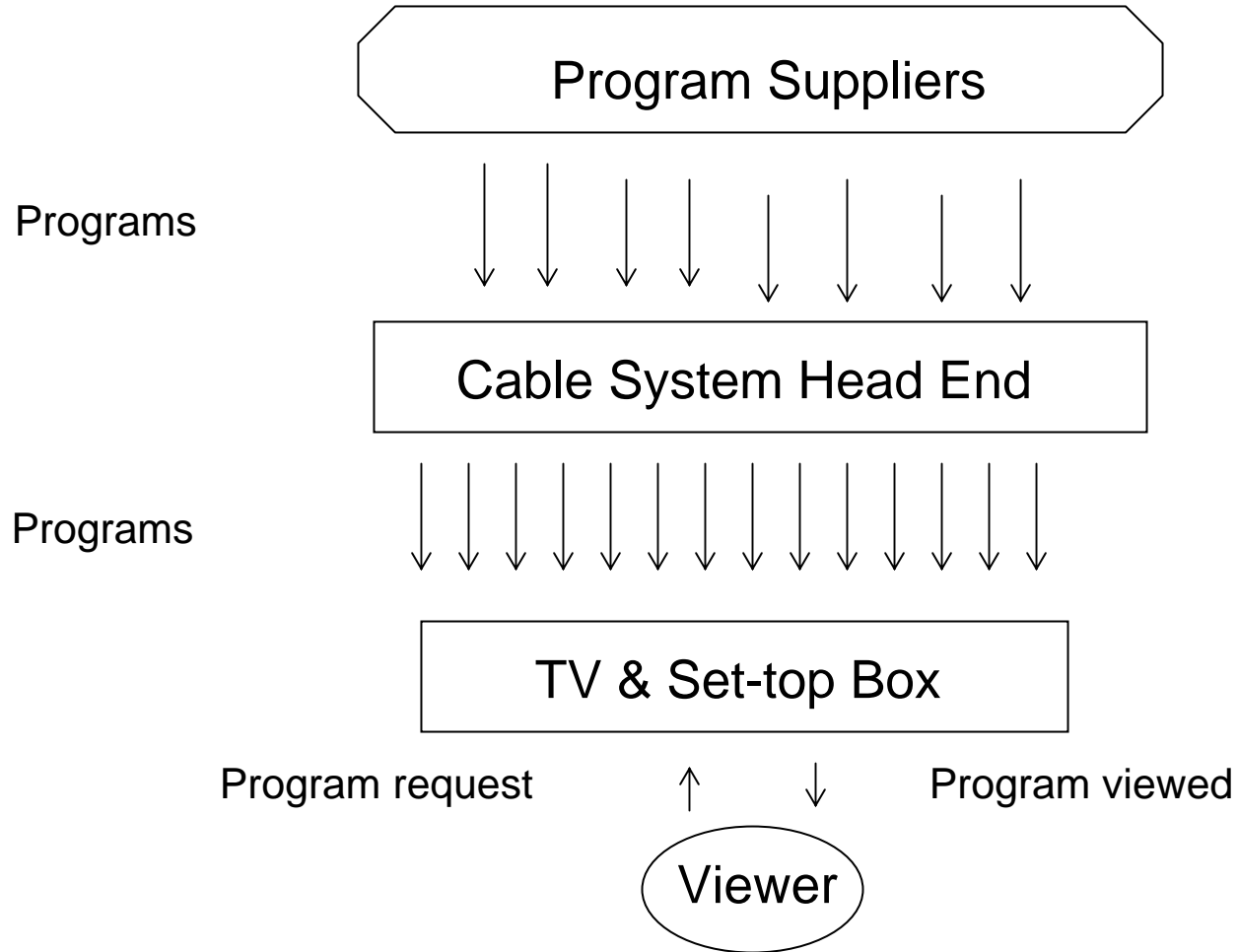
# Current trends and the emergent future

- With growing broadband penetration and increasing download speeds we are seeing a proliferation of online video services
  - Many are ancillary to traditional television services
    - E.g., network programs available on the web, websites for network programs
  - Others, like YouTube, are native to the web.
- To some extent, ancillary services are giving traditional video providers features of web-native services such as constant availability of content and multiple simultaneous options.
  - Raises question of whether web-native services are the harbinger of television's future
- Targeted ads

# Critical cost tradeoffs

- Media services in general are characterized by tradeoffs associated with costs of storage, content, and bandwidth
- For traditional video services:
  - Single channel services can save on content costs by storing programs and repeating them more frequently
  - Multichannel services must add channels to increase viewers' options at any given time, as illustrated with next slide

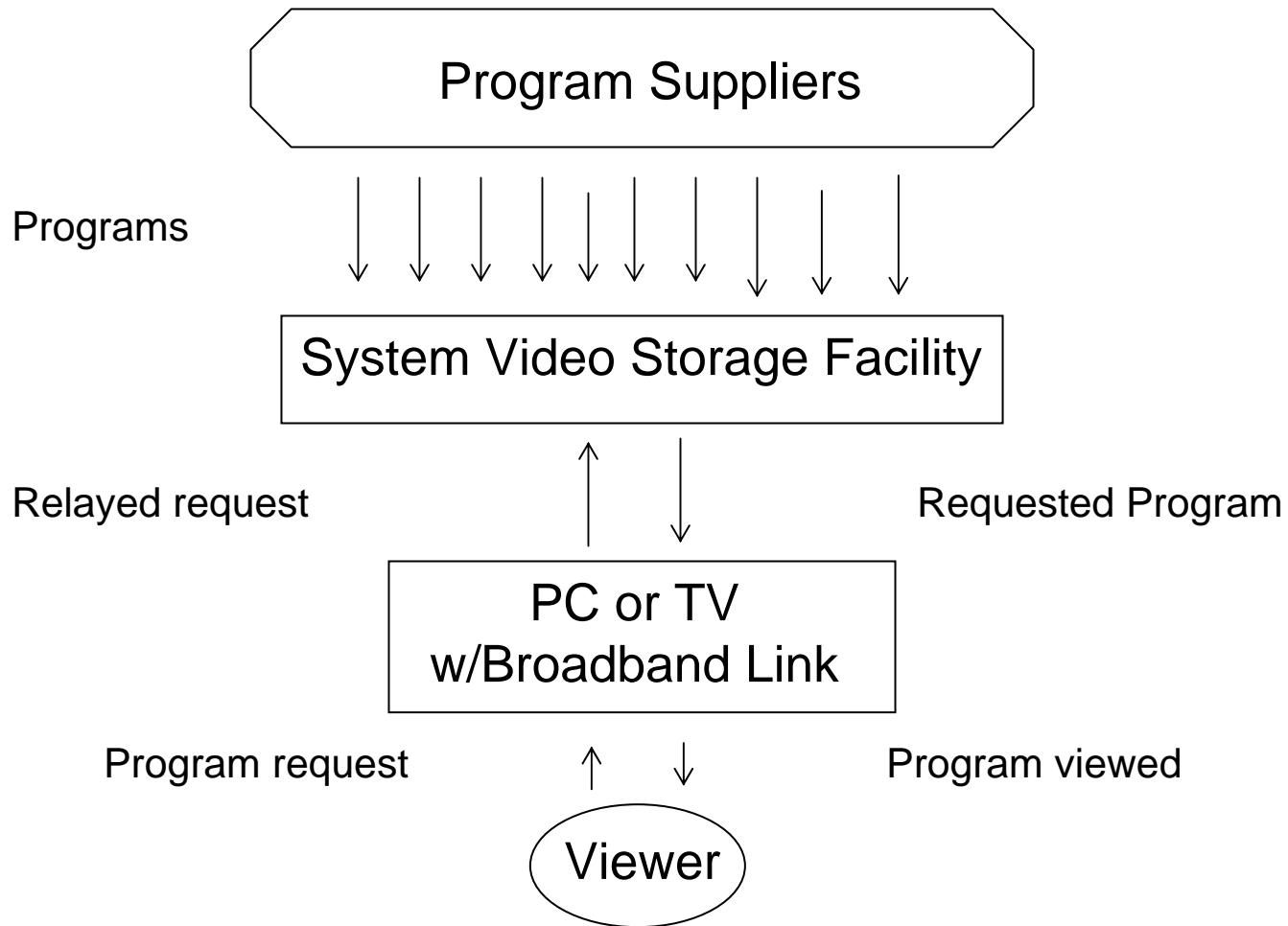
# Structure of Cable TV Service



# Contrast with IPTV

- Content resident on system video server
- Single broadband channel connects each viewer to video server
- Expanding viewer choices involves tradeoffs in storage capacity and frequency of new content acquisition

# IPTV (SDV) Service Structure



# Critical Difference

- With traditional MVPD service, must add channels to increase simultaneous options available to viewers
- With IPTV service, expand server capacity to increase simultaneous options available to viewers.
- YouTube is testimony to the low cost of storage (83.4 million videos in April 2008)

# Implications for nature of video services

- Potentially massively more content
  - More unique programs
  - Older programs retained longer (maybe forever)
- With no channels to fill, scheduling (and and traditional networks and PVRs and prime time as we know it) may become irrelevant
- Old programs never serve as a competitive constraint on the supply of new programs
  - Diehard fans can always find what they want
  - To young viewers old programs are fresh

# Compare with “true” internet TV

- Similar to Slide 7 expect have internet CDN server instead of system video storage facility
- Raises questions about that portion of television regulation that relies on existence of local distribution facility with owners subject to FCC authority
  - Content requirements for local broadcasters
  - Must carry obligations for cable systems
- Raises questions about incentives of broadband ISPS to increase capacity and reliability of their broadband service sufficiently to make net-based video services competitive with their own
  - Similar but distinct from net neutrality debate



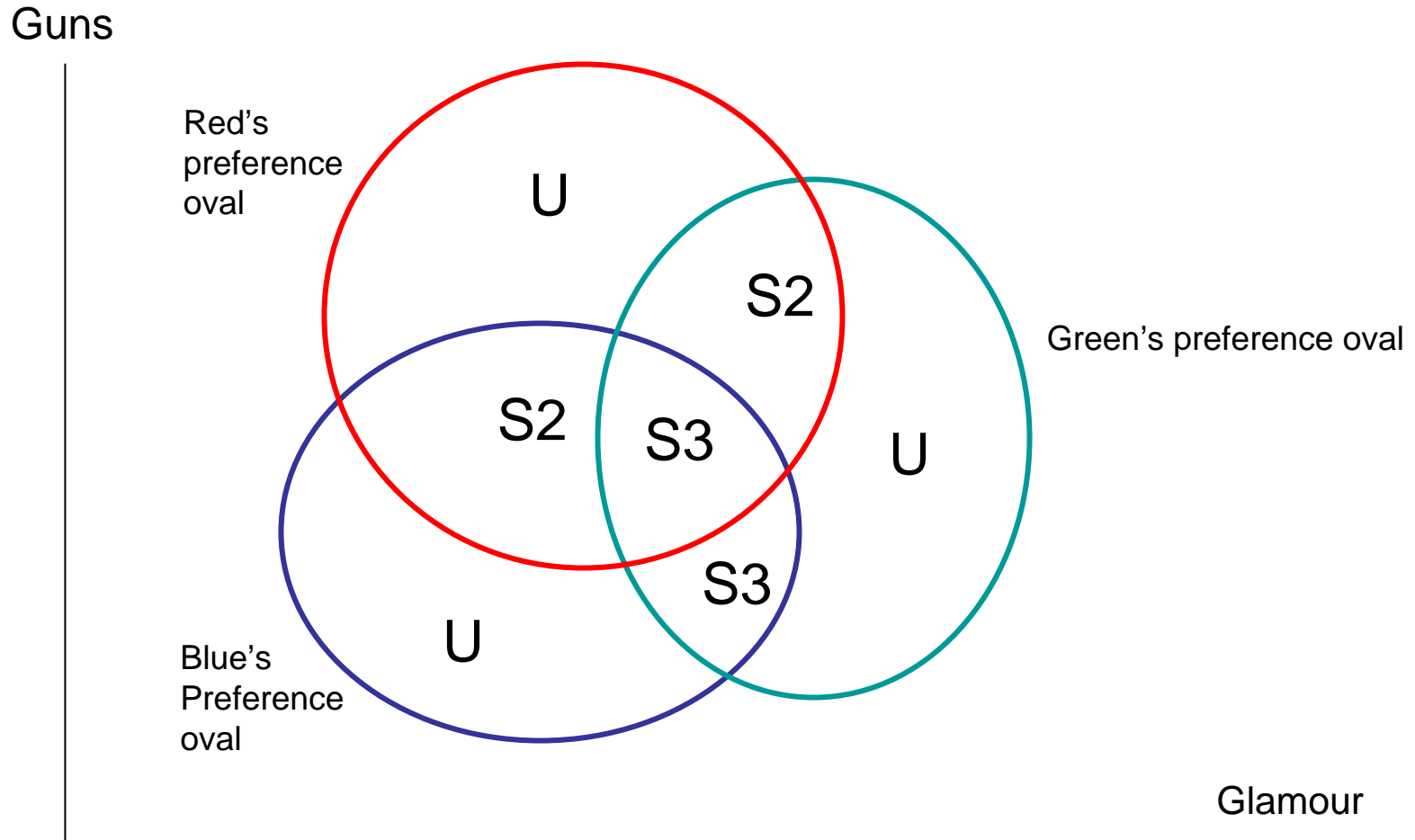
# Targeted ads

- Potentially could dramatically increase ad revenue from video audiences
  - Providing different ads to different people during same program and commercial break makes it possible to sell previously unsold viewers
- Would give rise to more reliance on ad revenue and lower subscription fees

# Program syndication arrangements for web-based services

- For web-resident services traditional geographic exclusivity arrangements mean little
- Simultaneous supply of common content to multiple content aggregators is observed (e.g., RSS services)
- Economic logic is consumers/viewers with distinct, but partially overlapping, preferred content sets

# Online Movie Services for 3 Viewer Types



U=unique to service; S2=shared by 2 services; S3=shared by 3 services