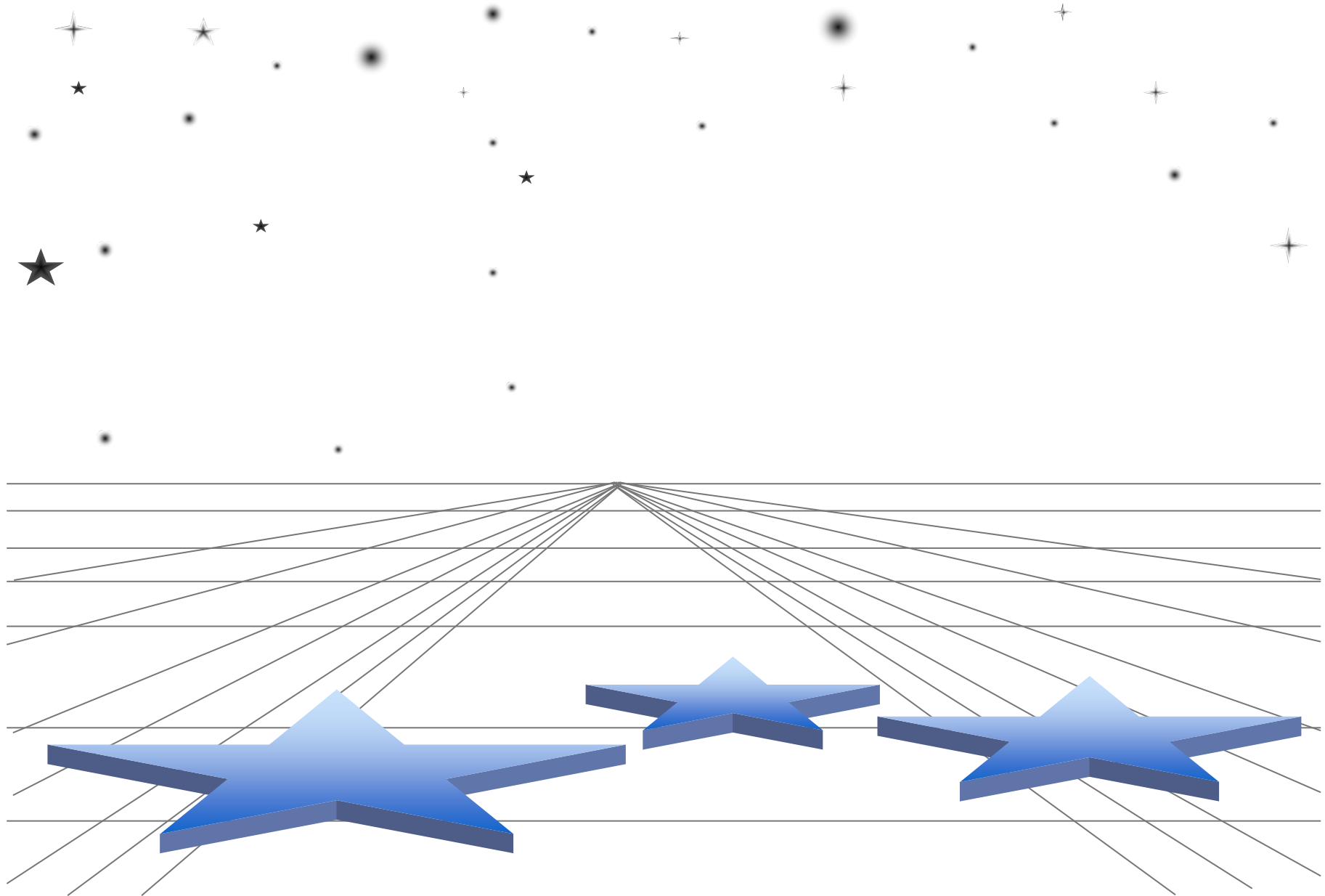


The Future of Digital Music in the Peer-to-Peer Web

Web Science Workshop at WWW2008 -
Understanding Web Evolution

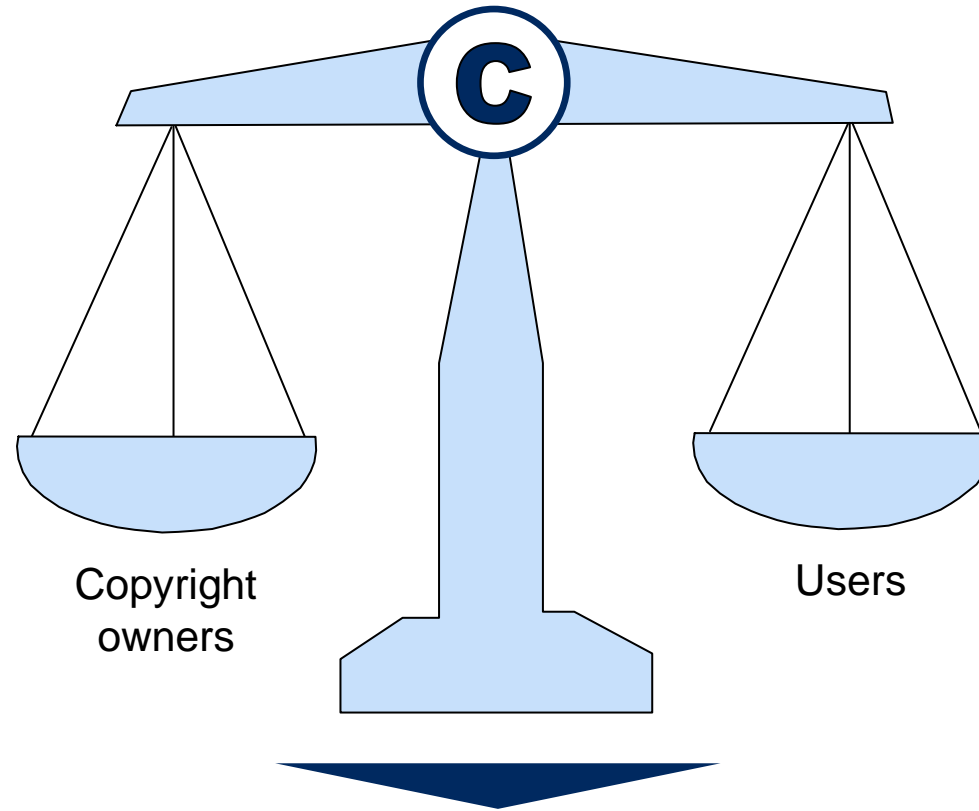
Wolf Richter
22/04/2008

Prologue: On predictions about the future of the Web



In “analogue times”, copyright law stroke a balance between the interests of the copyright owners and the interests of the users

Some control

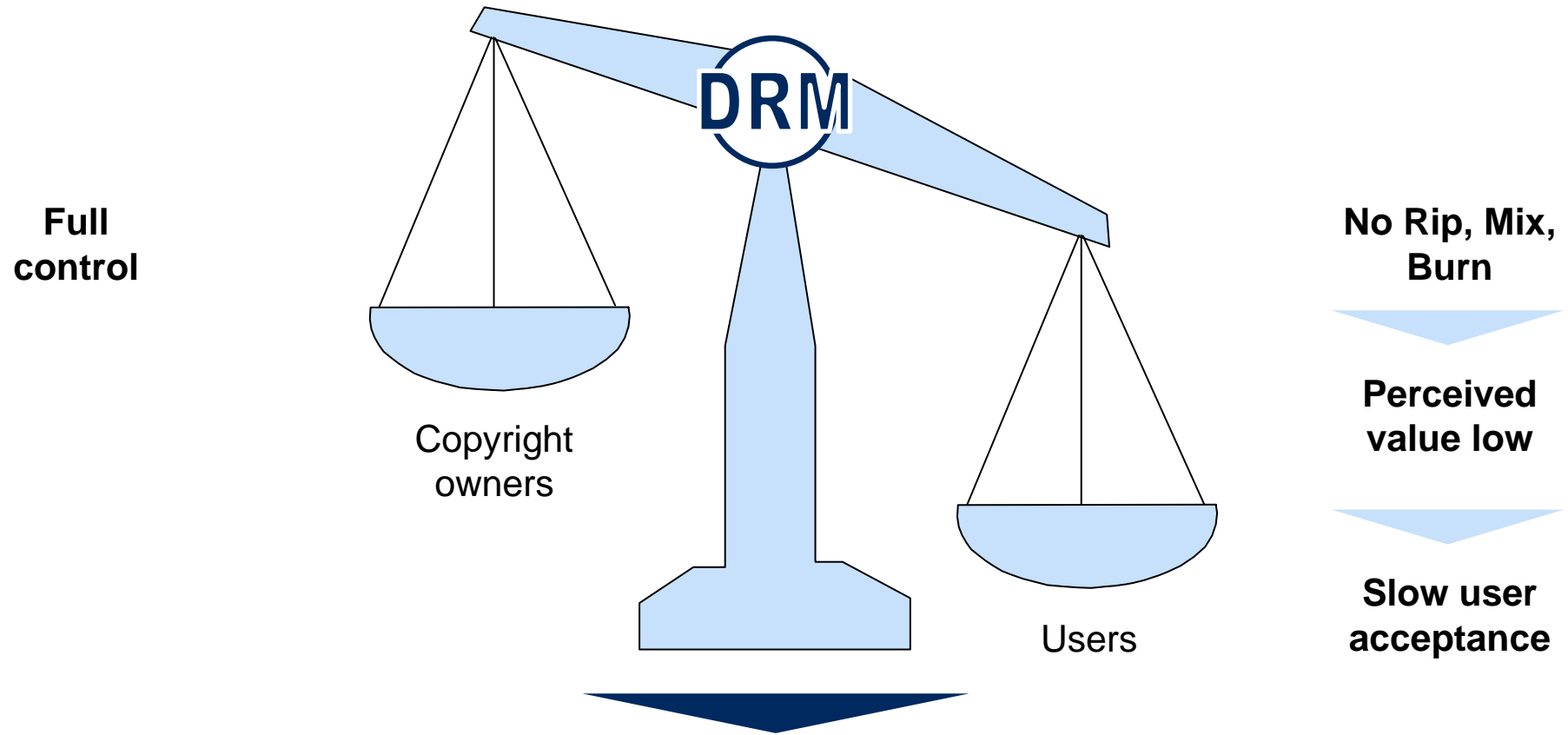


Some distribution

Copyright law limited by

- Term
- Use exceptions

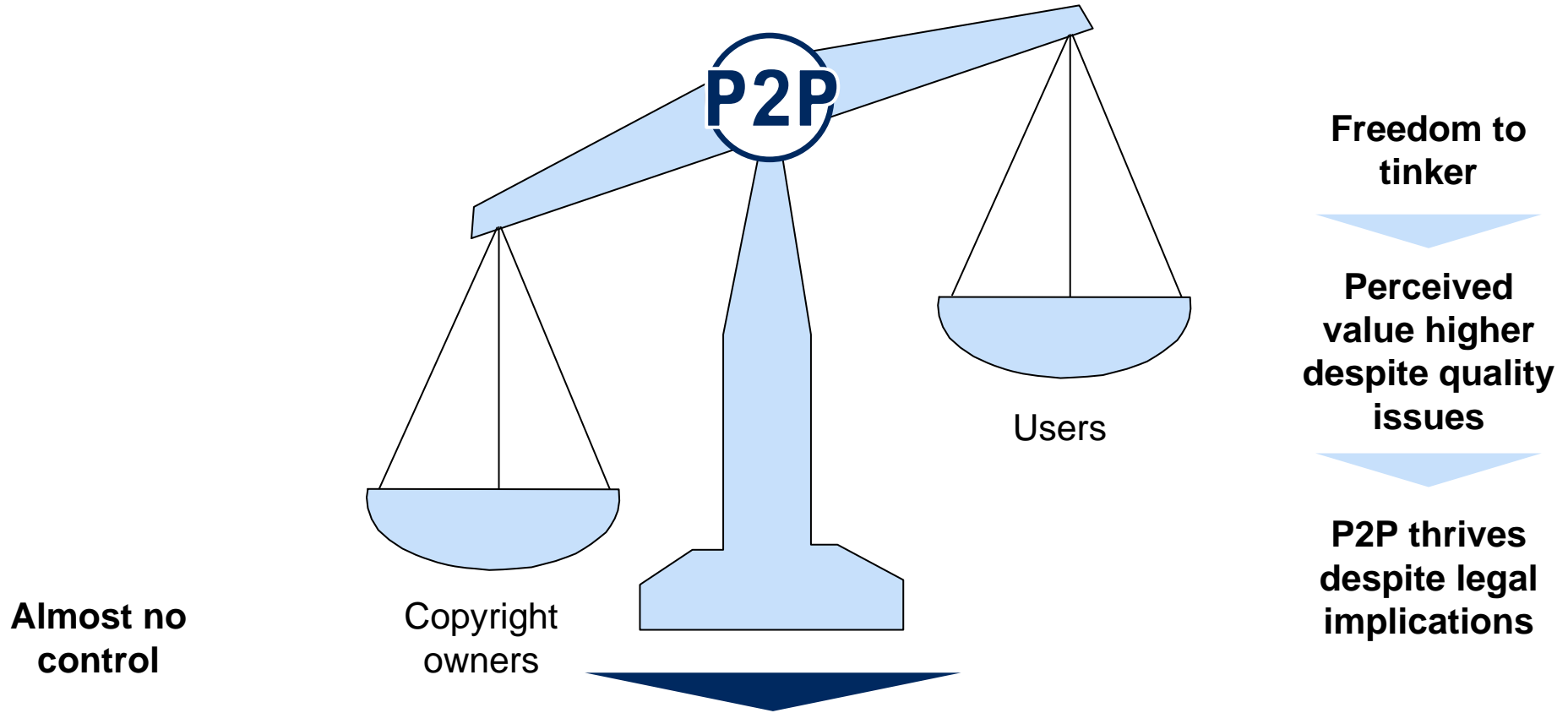
The music industry envisioned the future of the Web as a trusted space for the distribution of digital media enabled by DRM and digital copyright law



Technical protection ignorant of

- Term
- Use exceptions

Despite aggressive enforcement of copyright law illegal file sharing thrived as it provided higher value to the users



- Key learnings for creating a future vision
- Understand potential *and* limits of technology
 - Anticipate user behavior in view of technology
 - Align future vision with expected social practice

Myths about peer-to-peer file sharing



- **Users do not want to pay for music online**
- The architecture of the Web defies attempts to capture the value of file sharing

Example of Ring Back Tones has not only shown but also that users value the signaling effect and are willing to pay for it

The current success Ring Back Tones

Model	Caller listens to music instead of dial tone
Value for customers	Customers see value in representing themselves to the caller by the selection of his song
Value captured by	Mobile Phone Provider charges subscriber a fee for the RBT service
Enabled by	Mobile Phone network has been designed to charge subscribers

What can we learn from this for the Peer-to-Peer Web?

- The Web is not the mobile phone network
 - Open end user devices
 - Application neutral network
 - Lack of identity layer
 - No widely accepted payment system

Key take aways

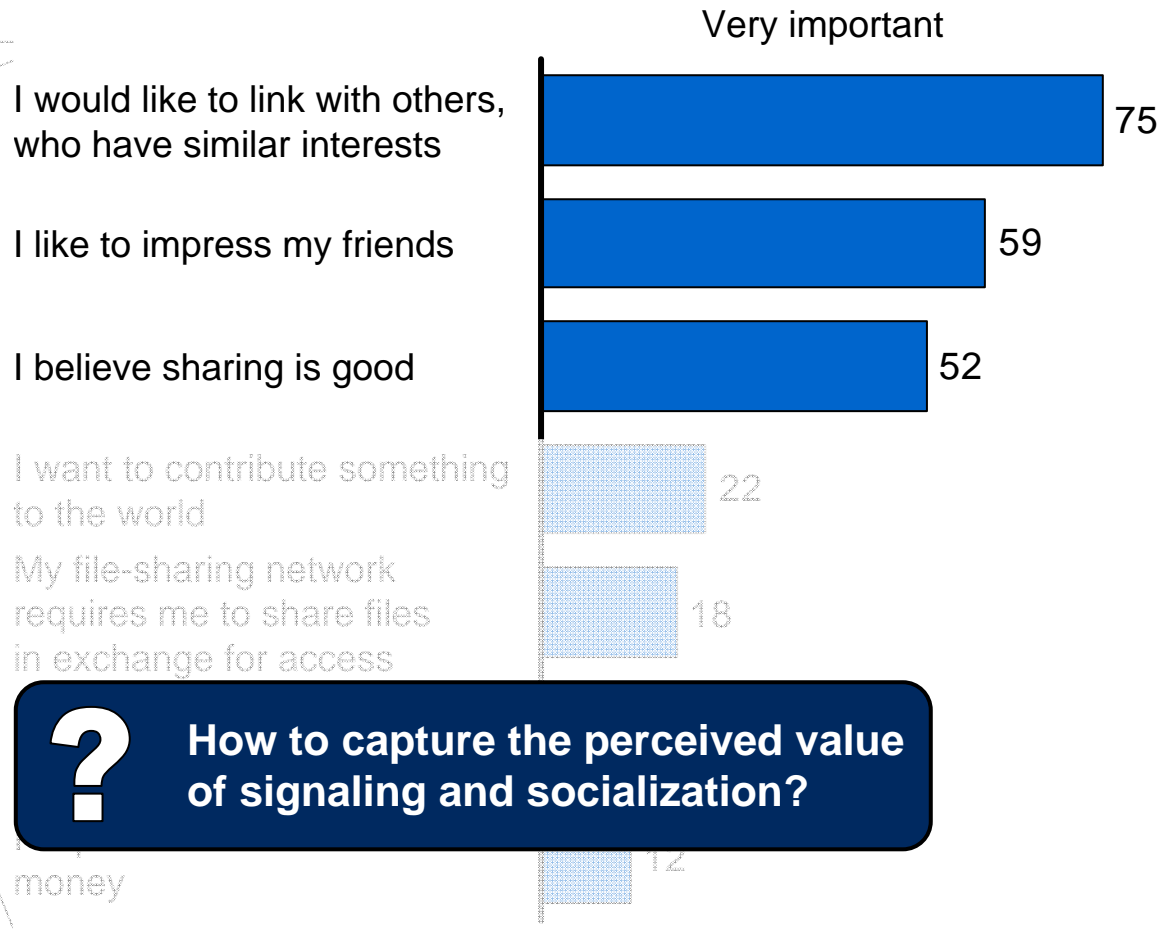
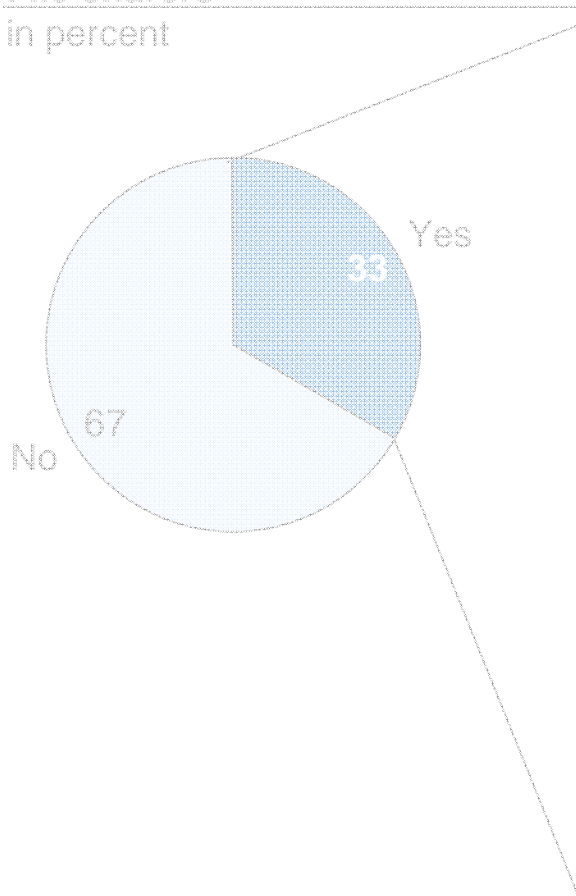
- Users see value in signaling
- Value can be captured if appropriate mechanisms are available
- Therefore let us investigate mechanisms to capture value

Linking with others who have similar interests most important reason to share (“upload”) files over the Internet

Survey question

- Do you share files, which have not been produced by you over the Internet?
- If yes: How important are the following statements to describe your motivation to share files?

File sharers in percent



? How to capture the perceived value of signaling and socialization?

Leah Belsky, Wolf Richter

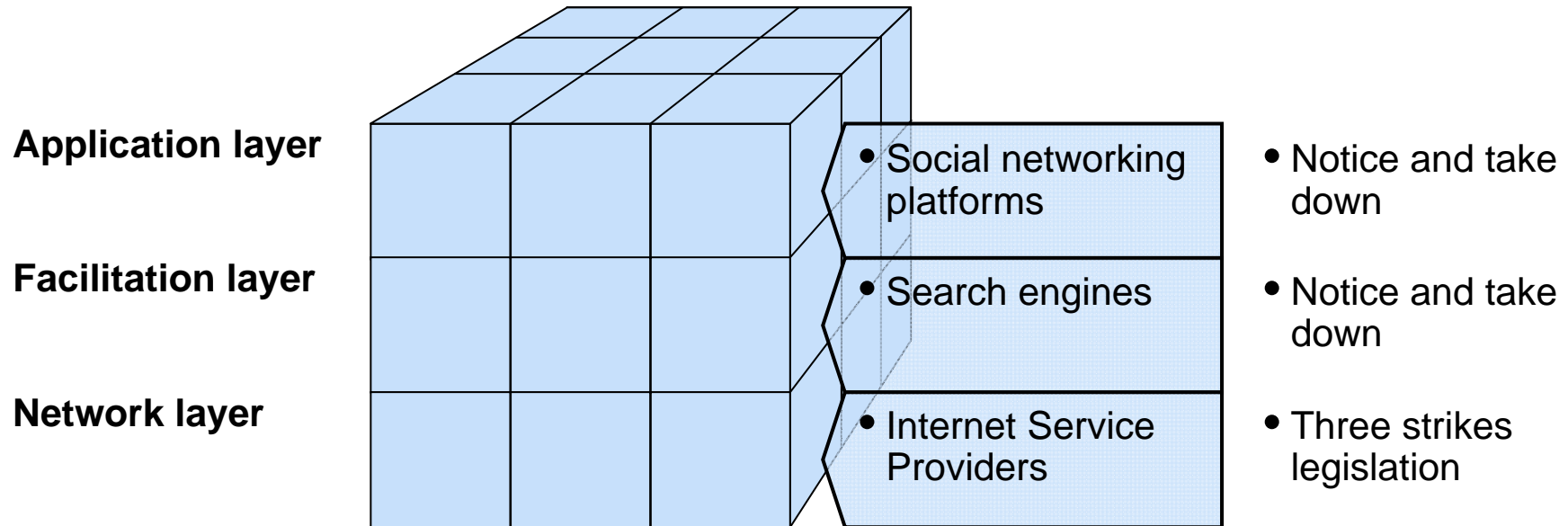
Wolf Richter - webevolve2008

Myths about peer-to-peer file sharing



- Users do not want to pay for music online
- **The architecture of the Web defies attempts to capture the value of file sharing**

Access to the Web for end users is controlled at every layer of the Internet by multiple points of control

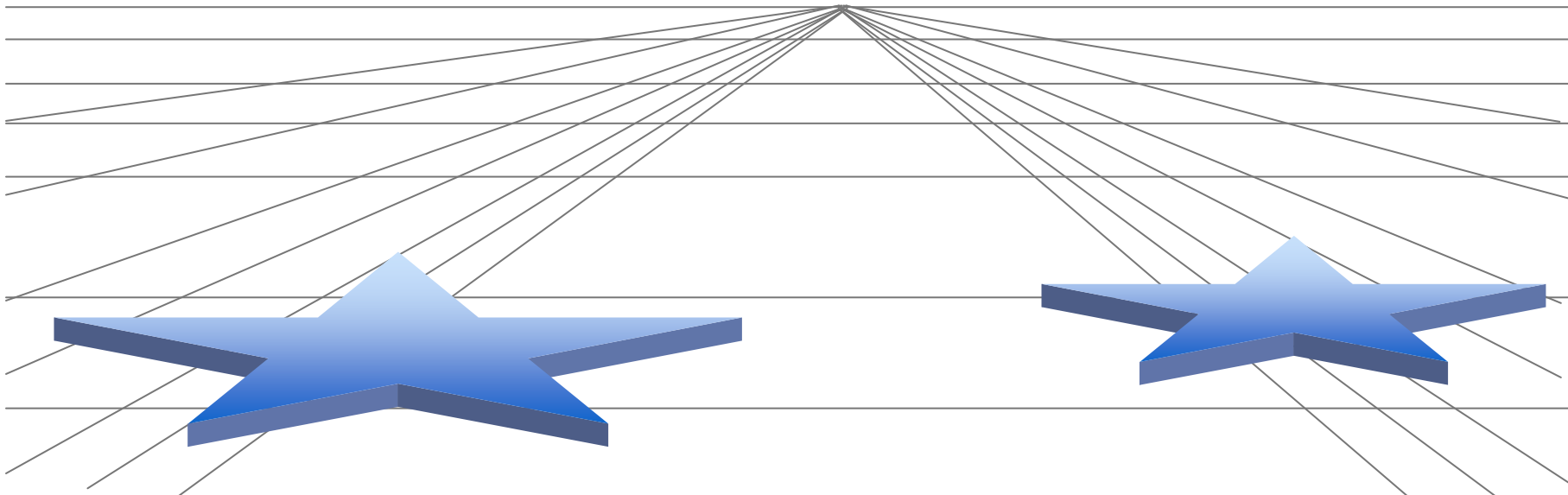


- Several gatekeepers control access to the Web
- Gatekeepers are potentially in a position to capture customer value
- Content providers are not among them – instead content providers have tried to force gatekeepers to enforce their rights

Two scenarios for the future of the Web as a space for digital music

- Content providers partner with gatekeepers to create legal spaces for digital music

- A compulsory blanket license for digital music



Social networking platforms are in a prime position to become spaces of legal digital media distribution and capture the value of file sharing

User side

- Users like social networks because they are safe environments and connect them to their friends
 - Designed for user convenience
 - Certified applications
 - Authenticated messaging
- Z-theory of social networking
- Users already use social networks to share thoughts, pictures and videos
- Users will like social networks even more the more of their day-to-day social activities they support

Social networking platform side

- Social networking platforms are gatekeepers at the top-level
- Social networking platforms add the “missing” identity layer to the Web
- They have working relationship with advertising customers and experimented with different models of “payment” already
- They have unique information about the activities and the social graph of their users
- They are in control in what is shared how and with whom
- Recent investments have filled their pockets
- They need to communicate a growth story to the market

Social network providers have figured out a couple of working “payment” methods – of which many go unnoticed by the users

Some ideas for capturing mechanisms

- **Monetize** the focused **attention** through targeted advertising
- Offer free trials for a limited amount of time for new songs for a **fee paid by music labels**
- Offer songs for download for free, permit sharing over the social network, and **sell the social graph information**
- Provide free streaming services and a limited amount of free downloads for a flat monthly fee, e.g. as part of a social network **premium package**
- Pay per download through a convenient and established infrastructure like **Paypal** or the social network's **virtual currency**
- Offer **value-added services**, e.g. "sending" songs to other users as gifts or dedicating songs to friends in exchange for a nominal fee

Incomplete and preliminary

And a real world example...

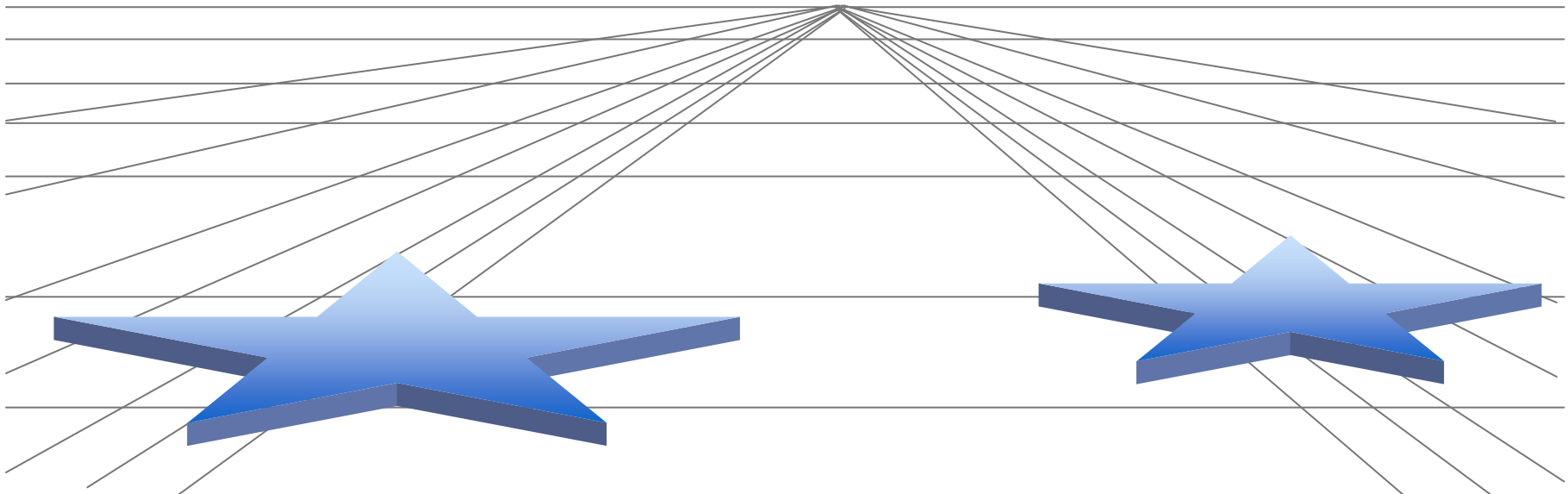


“City of God Temple presented by Starbucks” (in Shanghai)

Two scenarios for the future of the Web as a space for digital music

- Content providers partner with gatekeepers to create legal spaces for digital music

- **A compulsory blanket license for digital music**



The introduction of a blanket license could create a more competitive and diverse space for digital media

Cornerstones of the blanket license concept

1. Every broadband subscriber pays a **monthly content fee** together with the regular connection fee
2. In exchange, it will be **legal to share files** over the network
3. Copyright owners would **receive remuneration** from the collected content fees based on the popularity of their songs on the network

Potential effects of the blanket license

Aligns social practice with legal norm and reduces transaction cost

- Removes the burden of screening user activity from intermediary platforms (and ISPs as suggested by current proposals)

Levels the playing field

- Currently only major market players like Google, Apple, or potentially Facebook have sufficient power to negotiate with the music labels and close deals.

Provides an infrastructure for generating revenue for copyright owners

- Agnostic to business models, entrepreneurs can freely build on the infrastructure and design and offer value adding services

Two scenarios for the future of the Web as a space for digital music

The market creates privatized digital music spaces

- Music becomes a commodity to draw attention and drive the demand for services
- Privatized, highly controlled media space
- Prone to censorship
- Monopolistic
- High market entry cost foster dominance of large players
- High risk of consumer lock-in

Regulatory intervention introduces a Compulsory Blanket License

- Music files are valued based on their popularity
- Public shared infrastructure
- No central control of content flow
- Low barriers of entry create competitive market
- Open for innovation by small players, which can tap into existing pool of content
- Low risk of consumer lock-in

The choice is ours