

Business models

Antonio Brogi

Department of Computer Science
University of Pisa

A rectangular chalkboard with a light-colored wooden frame. The chalkboard is dark and has the text "Why business models are important?" written in white at the top left.

Why business models are important?

Example

- How to create a successful business “with a business model and a printer”
- Market needs
 - Many small companies need to provide a lunch service to employees
 - Restaurants are interested in getting more customers
- Idea
 - Small companies purchase vouchers and distribute them to employees
 - Employees redeem vouchers at local restaurants
 - Potential earnings
 - employer pays a premium to the voucher amount
 - merchant collects at a discount to the voucher amount
 - breakage (vouchers issued but not used)
 - float income (lag between voucher purchase and voucher redemption)

A rectangular chalkboard with a light-colored wooden frame. The chalkboard is dark and has two lines of white text written in the top-left corner. The text is in a casual, handwritten style.

Why business models are important?
Business model canvas

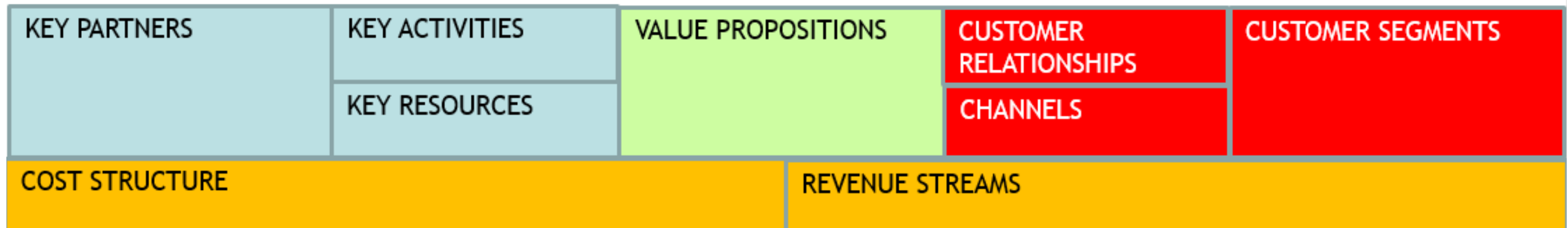
Business model

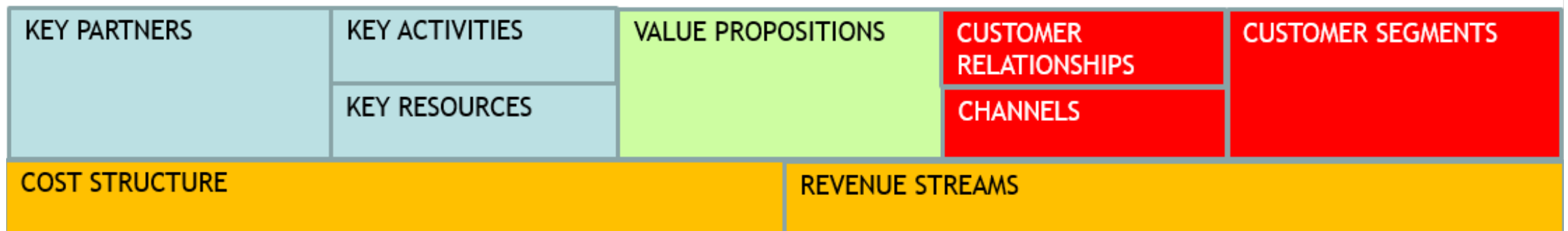


"A business model describes the **rationale** of how an organization **creates**, **delivers**, and **captures value**."

The Business Model Canvas

A shared language for describing, visualizing, assessing, and changing business models





VALUE PROPOSITIONS describes the bundle of products and services that create value for a specific customer segment

CUSTOMER SEGMENTS defines the different groups of people or organizations an enterprise aims to reach and serve

CUSTOMER RELATIONSHIPS describes the types of relationships a company establishes with specific customer segments

CHANNELS describes how a company communicates with and reaches its customer segments to deliver a value proposition

KEY RESOURCES describes the most important assets required to make a business model work

KEY ACTIVITIES describes the most important things a company must do to make its business model work

KEY PARTNERS describes the network of suppliers and partners that make the business model work

REVENUE STREAMS represents the cash a company generates from each customer segment
(costs must be subtracted from revenues to create earnings)

COST STRUCTURE describes all costs incurred to operate a business model



<https://www.youtube.com/watch?v=RV-Uw6Y7p98>

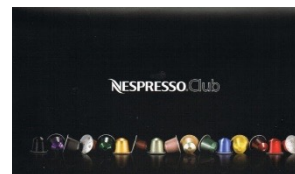
1976

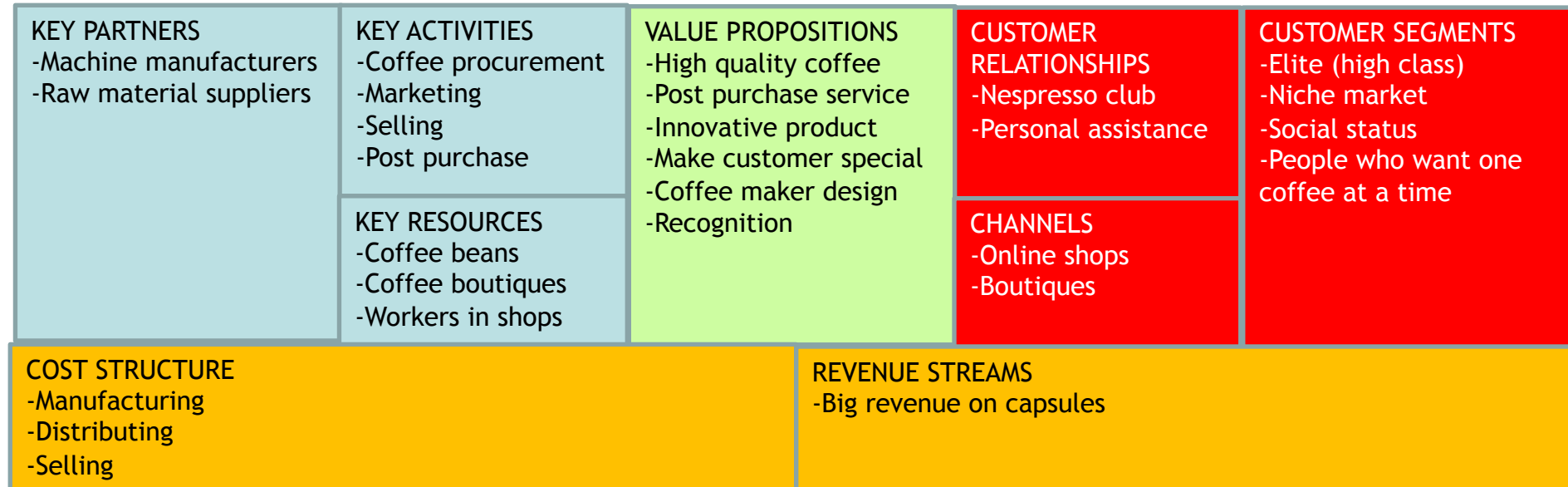
- Nestlé dominated world market of «instantaneous coffee» with Nescafé
- Weak in the rest of the coffee market
- Nespresso system copyrighted

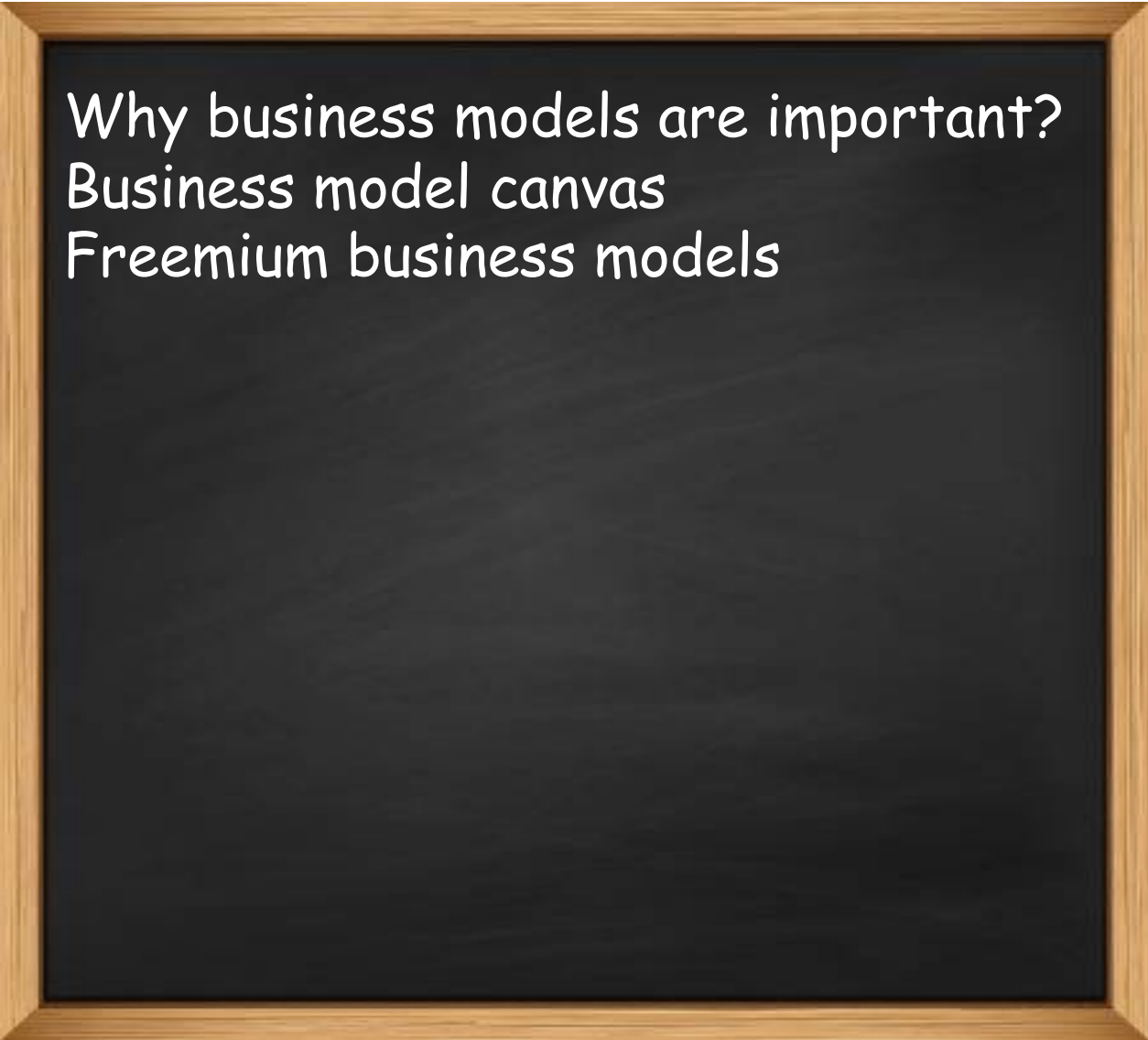


1988

- New CEO (Chief Executive Officer)
- **New business model** for Nespresso
 - Market segment: office departments and high income families
 - Advertising
 - Direct sell of coffee capsules, different channels
 - Online shop
 - “Boutique” shops in exclusive location
 - “Club Nespresso”







Why business models are important?
Business model canvas
Freemium business models

Freemium: Get the Basics for Free, Pay for More

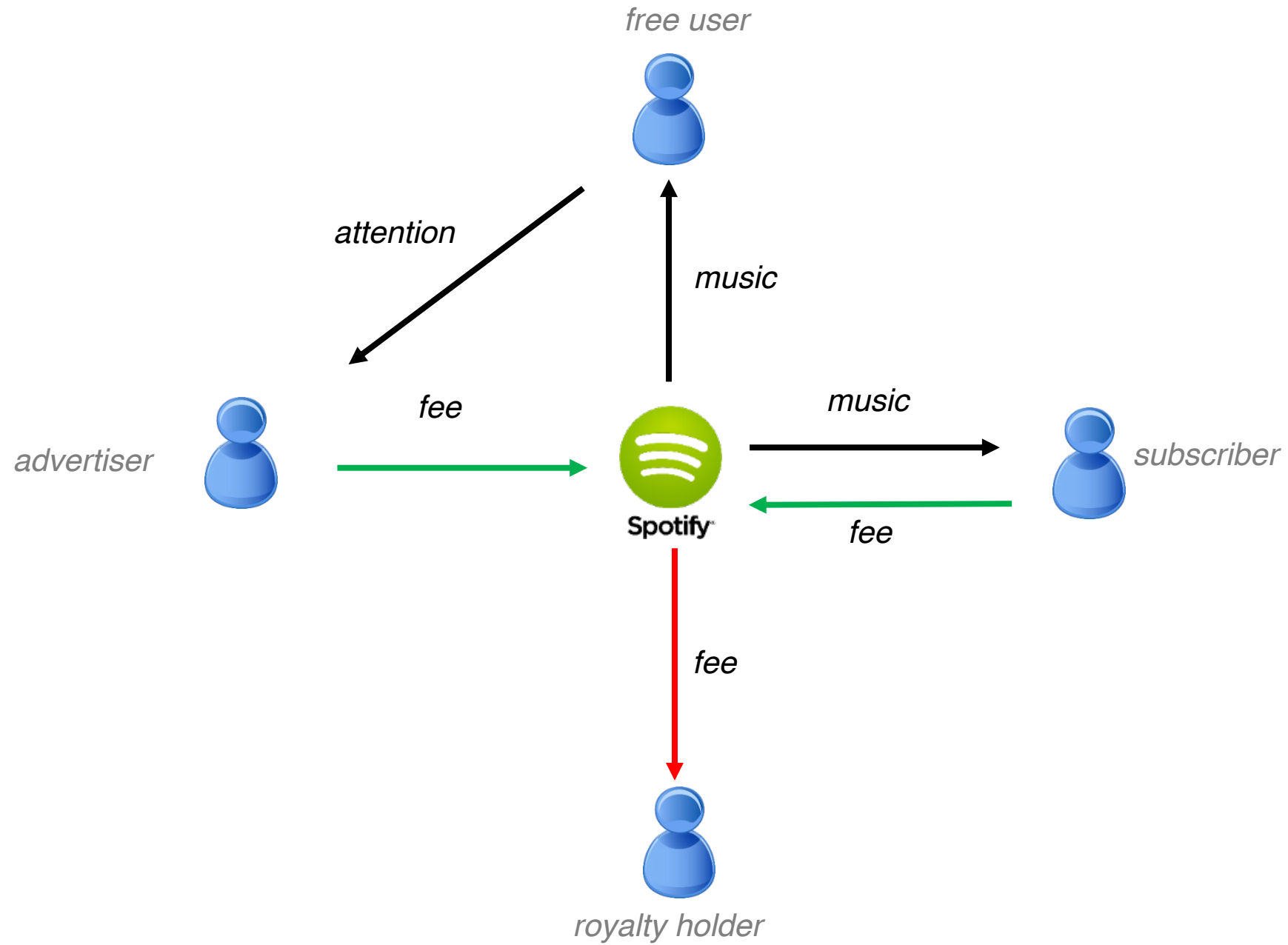


Blending **free** basic services with paid **premium** services

Watching

- costs of serving free users and
- rates at which free users convert to premium customers

Usually 10% of all users subscribe to premium services

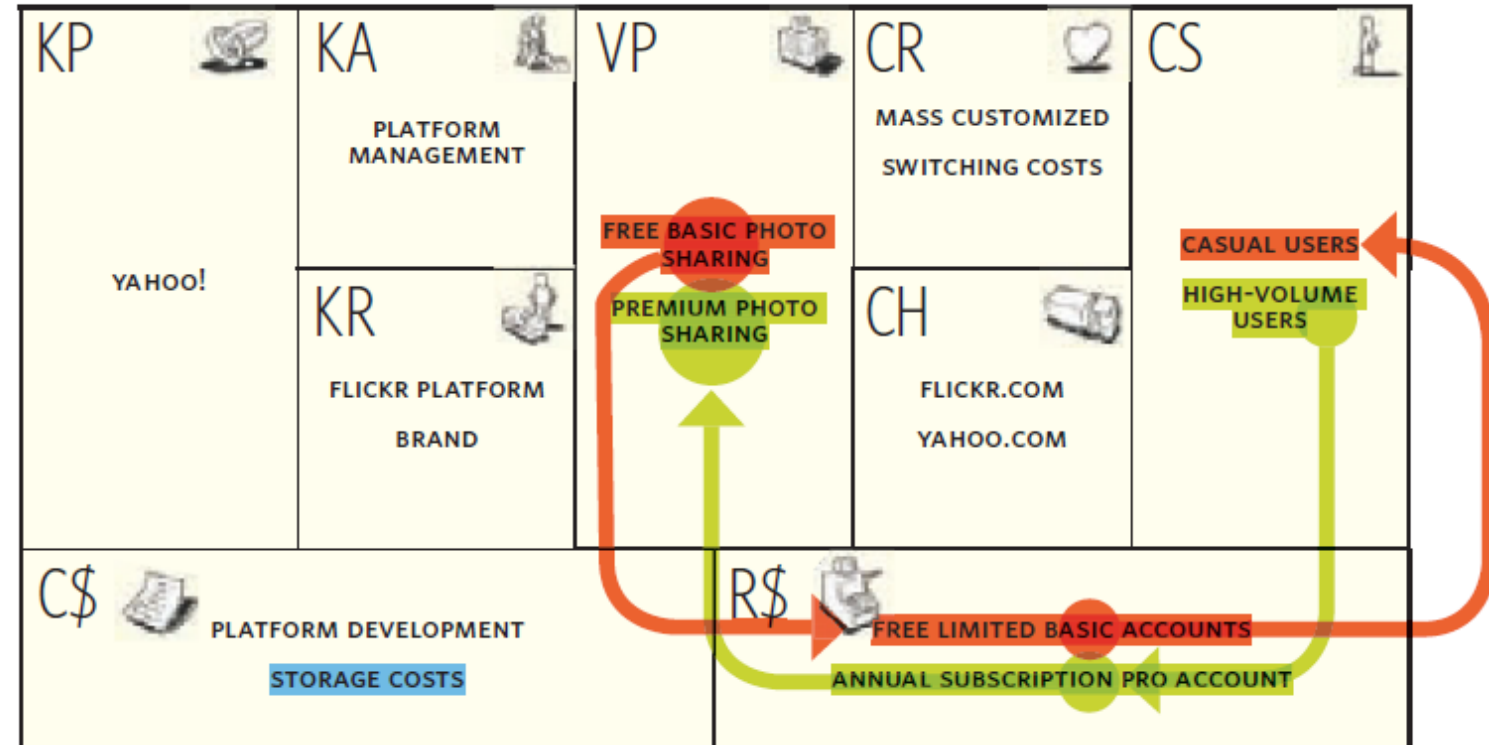
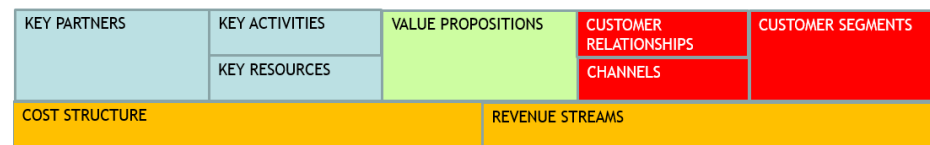


Costs for F+S users



Fees from S subscribers
Indirect fees for F free users





Flickr
2002: started
2005: acquired by Yahoo! (~25MUSD)

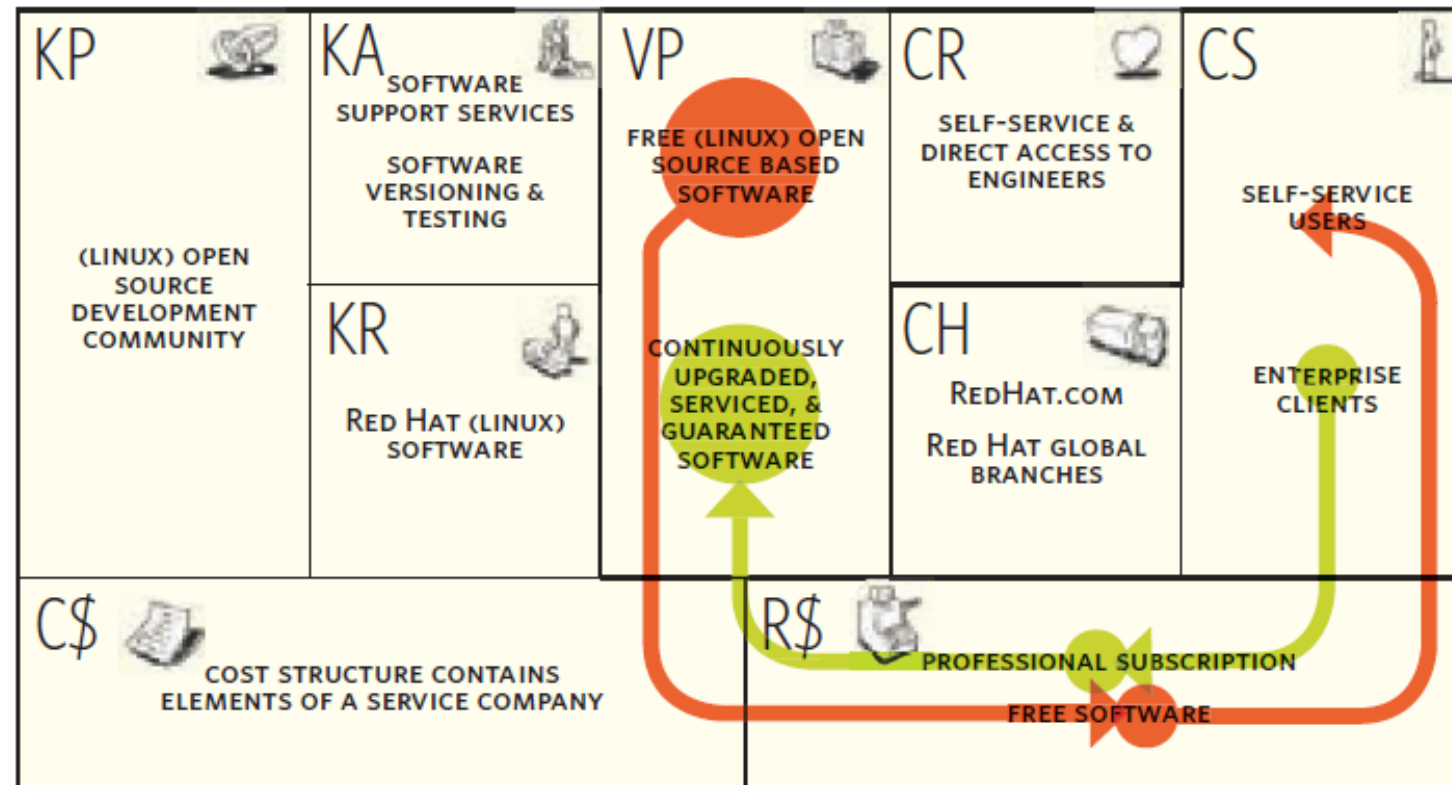
Yahoo!
2009: Microsoft offers 44 BUSD to buy Yahoo!
2017: Verizon acquires Yahoo! for 4.8 BUSD

2018: SmugMug acquired Flickr



Companies interested in robust, licensing fee-free open source software, but reluctant to adopt it due to concerns that no single entity is legally responsible for providing and maintaining it

KEY PARTNERS	KEY ACTIVITIES	VALUE PROPOSITIONS	CUSTOMER RELATIONSHIPS	CUSTOMER SEGMENTS
	KEY RESOURCES		CHANNELS	
COST STRUCTURE			REVENUE STREAMS	



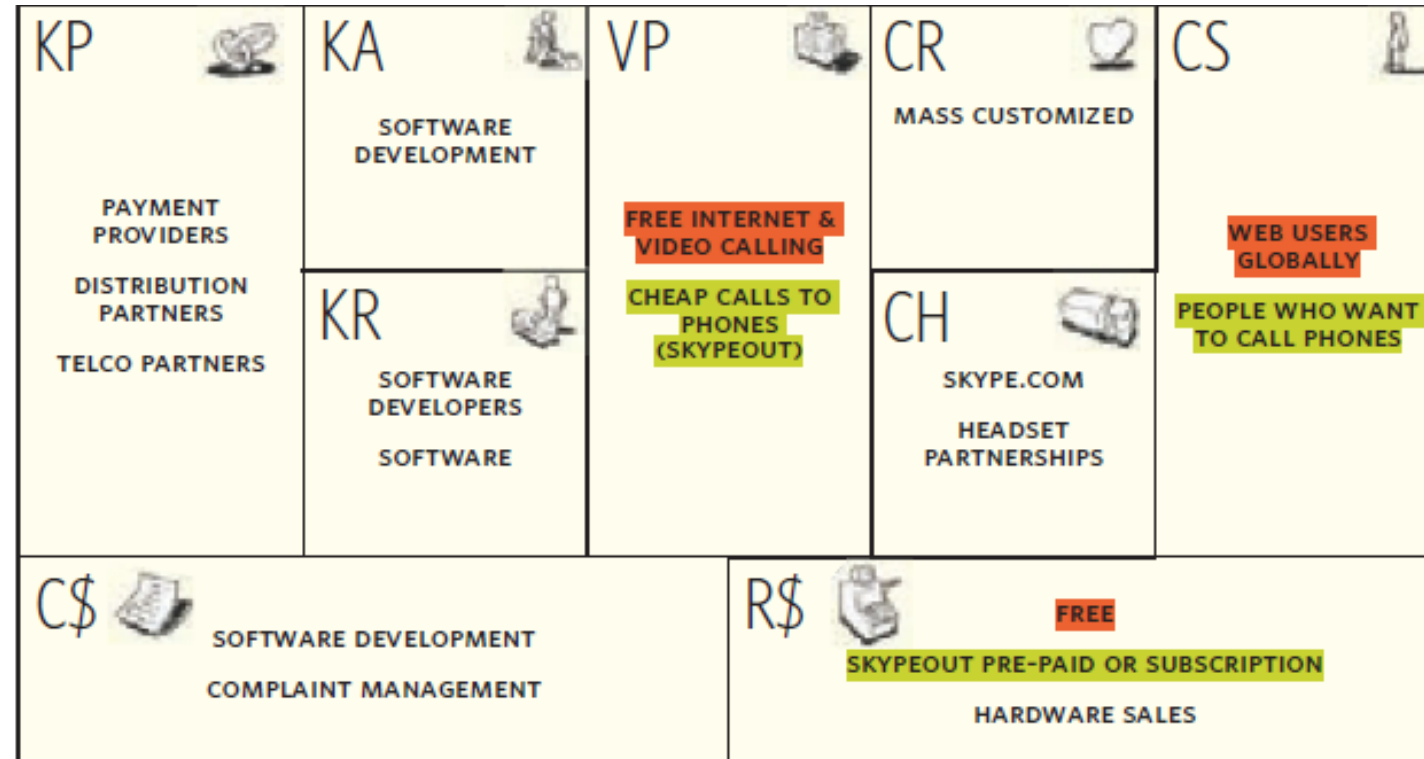
July 2019

IBM Closes Landmark Acquisition of Red Hat for \$34 Billion; Defines Open, Hybrid Cloud Future



P2P routing of free calls through the Internet

KEY PARTNERS	KEY ACTIVITIES	VALUE PROPOSITIONS	CUSTOMER RELATIONSHIPS	CUSTOMER SEGMENTS
	KEY RESOURCES		CHANNELS	
COST STRUCTURE			REVENUE STREAMS	



Skype
2003: started
2005: acquired by Ebay
2011: acquired by Microsoft (8.5 BUSD)



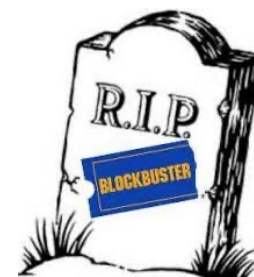
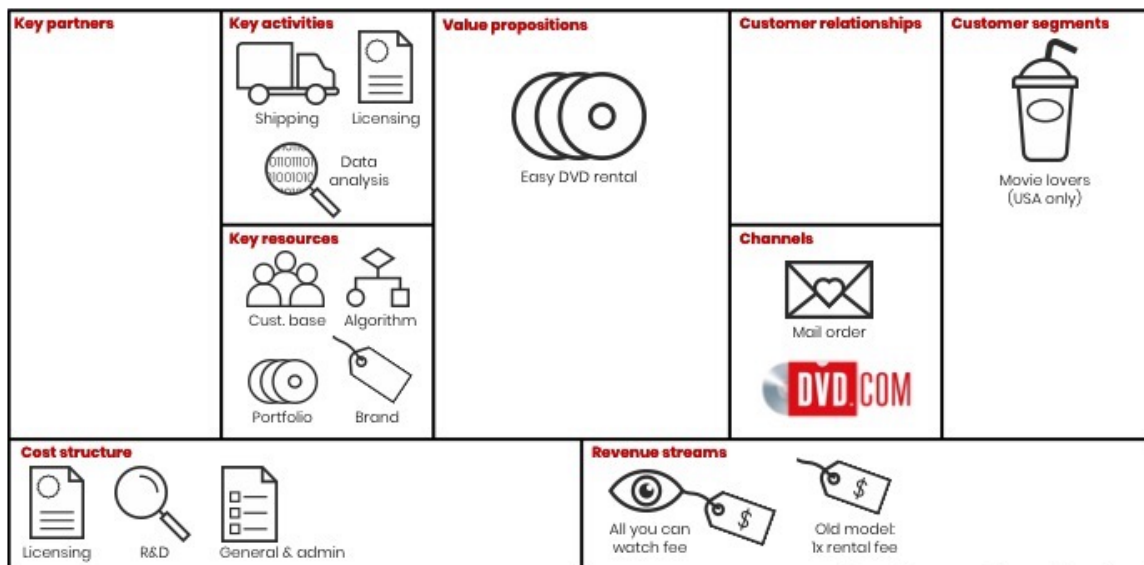
Dropbox Basic

Get a Dropbox free account

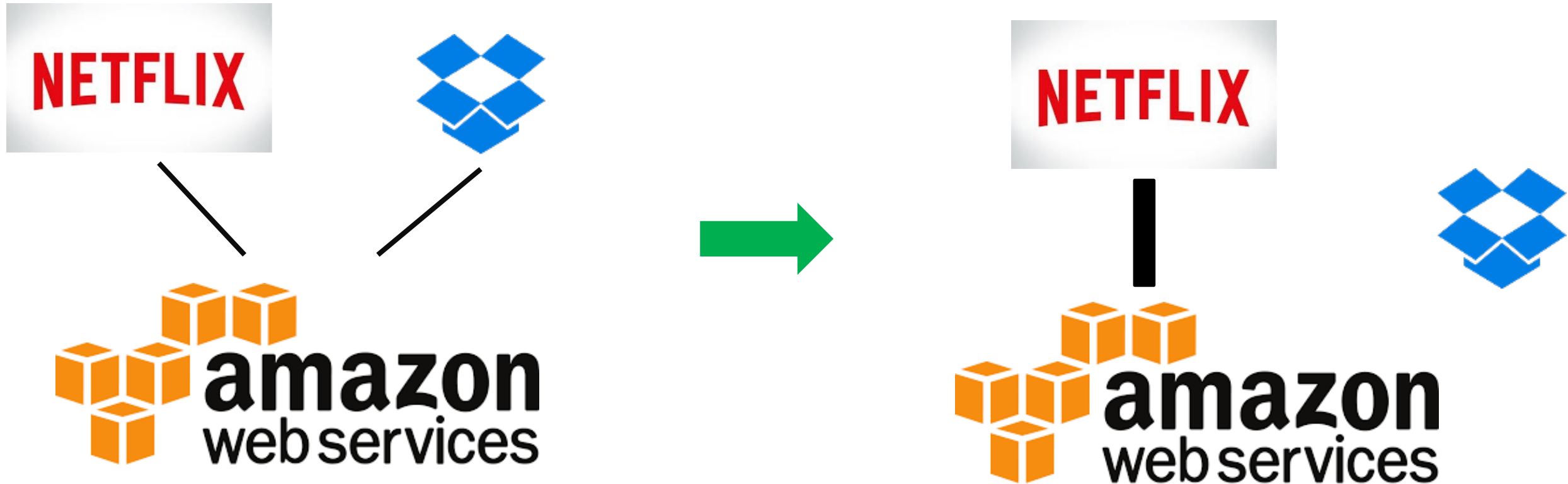
Sign up for 2 GB of storage, and start accessing and sharing photos, documents, and other files from any device.

	For individuals		For teams		
	Professional €16.58/month	Professional + eSign €25.99/month	Standard €10/user/month	Standard + DocSend €45/user/month	Advanced €15/user/month
	Try for free or purchase now	Try for free or purchase now	Try for free or purchase now	Purchase now	Try for free or purchase now
Dropbox core features					
Storage ?	3 TB (3,000 GB)	3 TB (3,000 GB)	5 TB (5,000 GB)	5 TB (5,000 GB)	As much space as needed
Best-in-class sync technology ?	✓	✓	✓	✓	✓
Any time, anywhere access ?	✓	✓	✓	✓	✓
Easy and secure sharing ?	✓	✓	✓	✓	✓
256-bit AES and SSL/TLS encryption ?	✓	✓	✓	✓	✓
Legally binding eSignature requests within Dropbox ?	Up to 3 per month	Unlimited	Up to 3 per month	Up to 3 per month	Up to 3 per month
5 custom eSignature templates ?		✓			
Industry-leading eSignature security and privacy standards ?		✓			

NETFLIX



Netflix and Dropbox strategies w.r.t. AWS





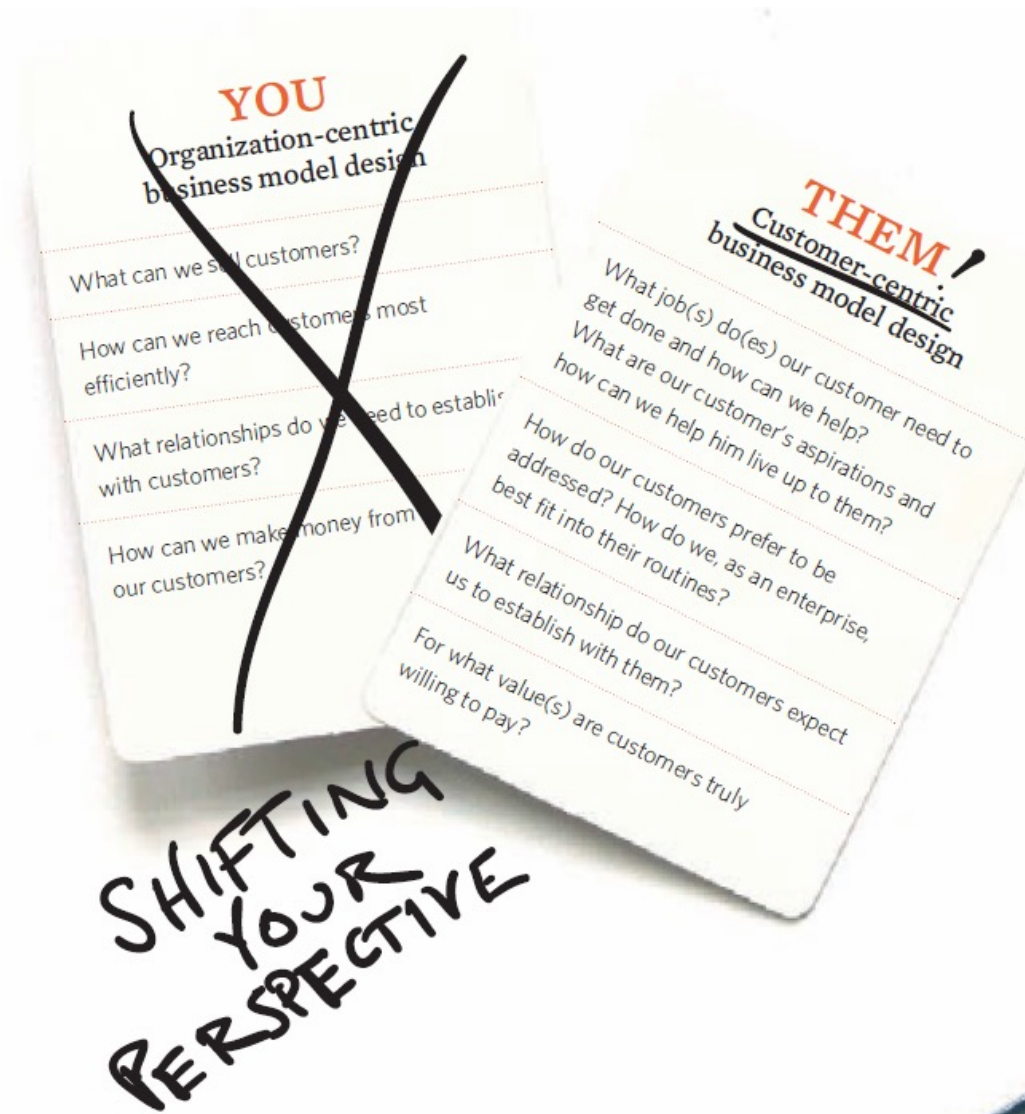
What is a business model?

Examples

Freemium business models

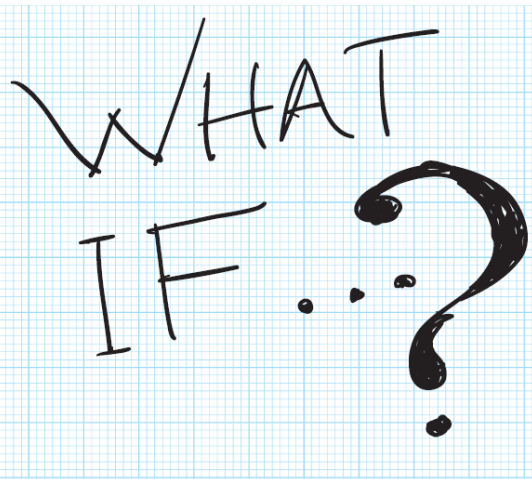
Business model generation

Customer insights









Ideation

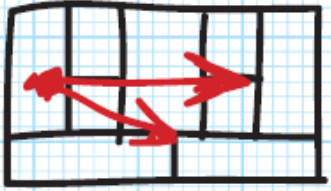




The power of «what if» questions

- ... we provide a free image hosting service to everybody? 
- ... we provide free software to everybody?  redhat
- ... voice calls were free worldwide? 
- ... we provide free storage to everybody? 
- ... we stream music free to everybody?  Spotify
- ... we provide a free search engine to everybody? 
- ...

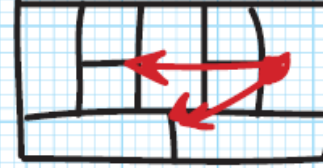
Epicenters of business innovation



RESOURCE-DRIVEN

RESOURCE-DRIVEN INNOVATIONS ORIGINATE FROM AN ORGANIZATION'S EXISTING INFRASTRUCTURE OR PARTNERSHIPS TO EXPAND OR TRANSFORM THE BUSINESS MODEL.

e.g. AWS and Amazon fulfillment



CUSTOMER-DRIVEN

CUSTOMER-DRIVEN INNOVATIONS ARE BASED ON CUSTOMER NEEDS, FACILITATED ACCESS, OR INCREASED CONVENIENCE. LIKE ALL INNOVATIONS EMERGING FROM A SINGLE EPICENTER, THEY AFFECT OTHER BUSINESS MODEL BUILDING BLOCKS.

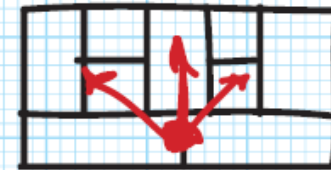
e.g., 23andMe offering personalized DNA testing to (health professionals and) individual clients



OFFER-DRIVEN

OFFER-DRIVEN INNOVATIONS CREATE NEW VALUE PROPOSITIONS THAT AFFECT OTHER BUSINESS MODEL BUILDING BLOCKS.

e.g., Cemex delivering poured cement in ~~48~~ 4 hours



FINANCE-DRIVEN

INNOVATIONS DRIVEN BY NEW REVENUE STREAMS, PRICING MECHANISMS, OR REDUCED COST STRUCTURES THAT AFFECT OTHER BUSINESS MODEL BUILDING BLOCKS.

Xerox leasing first copies at a monthly cost, including 2,000 free copies



What is a business model?

Examples

Freemium business models

Business model generation

Case studies

Case study: Amazon's revenue

Amazon's short story

- “Cadabra” founded by Jeff bezos in 1994
(name changed in 1995 after a lawyer misheard its original name as "cadaver", new name inspired to Amazon river - largest river by discharge of water in the world)
- Company began as an online bookstore
- Unusual initial business plan: did not expect to make a profit for 4-5 years
- First profit (5 MUSD) in Q4 2001

Amazon's Global net revenue



1 ...

2 ...

...

Amazon's Global net revenue 2022 (in BUSD)

220.00 Online stores

117.72 Retail third-party seller services*

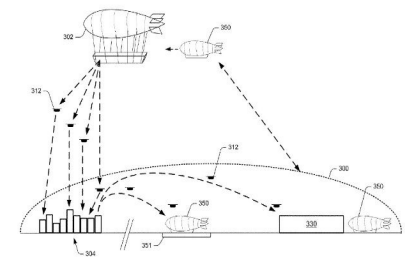
80.10 AWS

35.22 Subscription services**

18.96 Physical stores

* includes Fulfillment by Amazon

** includes Amazon Prime



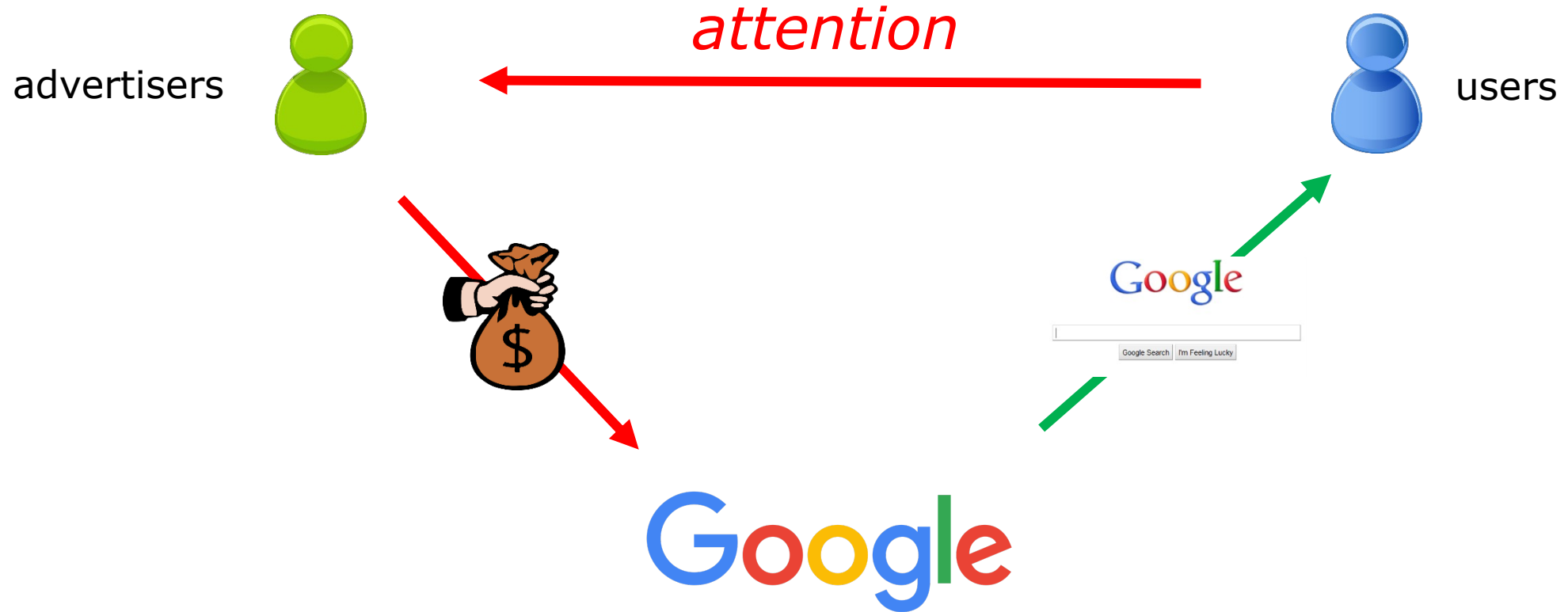
Amazon airship patent



<https://www.youtube.com/watch?v=NrmMk1Myrxc>

Case study: Google's search engine

Why is Google «for free»?



Customised advertising

How search ads work



<https://www.youtube.com/watch?v=ka4tCkYXHiE>

Google: Not just a search engine ...

Google app, product or service

Google Chrome

Google Search

Gmail

Ads

Google Photos

Google Fit

Google Maps

Google Calendar

Google Hangouts

YouTube

Google News

Google Books

Google Shopping

Waze