

The EBU logo is displayed in a large, white, sans-serif font. The background of the slide is a photograph of a modern glass-walled building with several large satellite dishes mounted on its roof, set against a clear blue sky. A semi-transparent circular graphic is visible on the right side of the image.

EBU

OPERATING EUROVISION AND EURORADIO

The need for public service algorithms

Sébastien Noir

8 Mai 2019



About me

- RTS – SRG : ~6 years

- Software developer
- Product Owner mobile, News, Sports, Kids
- Product Manager Play SRG

- EBU (2018)

- PEACH Product Owner
- Head of Software engineering in Technology and Innovation dept.

SUMMARY

- **Context**
- **Value & relevance of personalisation**
- **The digital shift for broadcasters**
- **PEACH**
- **Audience and relevance**
- **Broadcasters should...**



Context : web evolution

> Web 1.0 : mostly read

- Flow : Publication from **us** to **all**
- Users : search, read

> Web 2.0 : dynamic and collaborative

- Social networks = **platforms** where users **publish** and **interact**
- Wikipedia : collaborative effort for the common good
- Flow : **Many** to **many**
- Users : Publish, like, share, watch



Web now : portable, personal, pervasive

> Flow

– One or Many to me

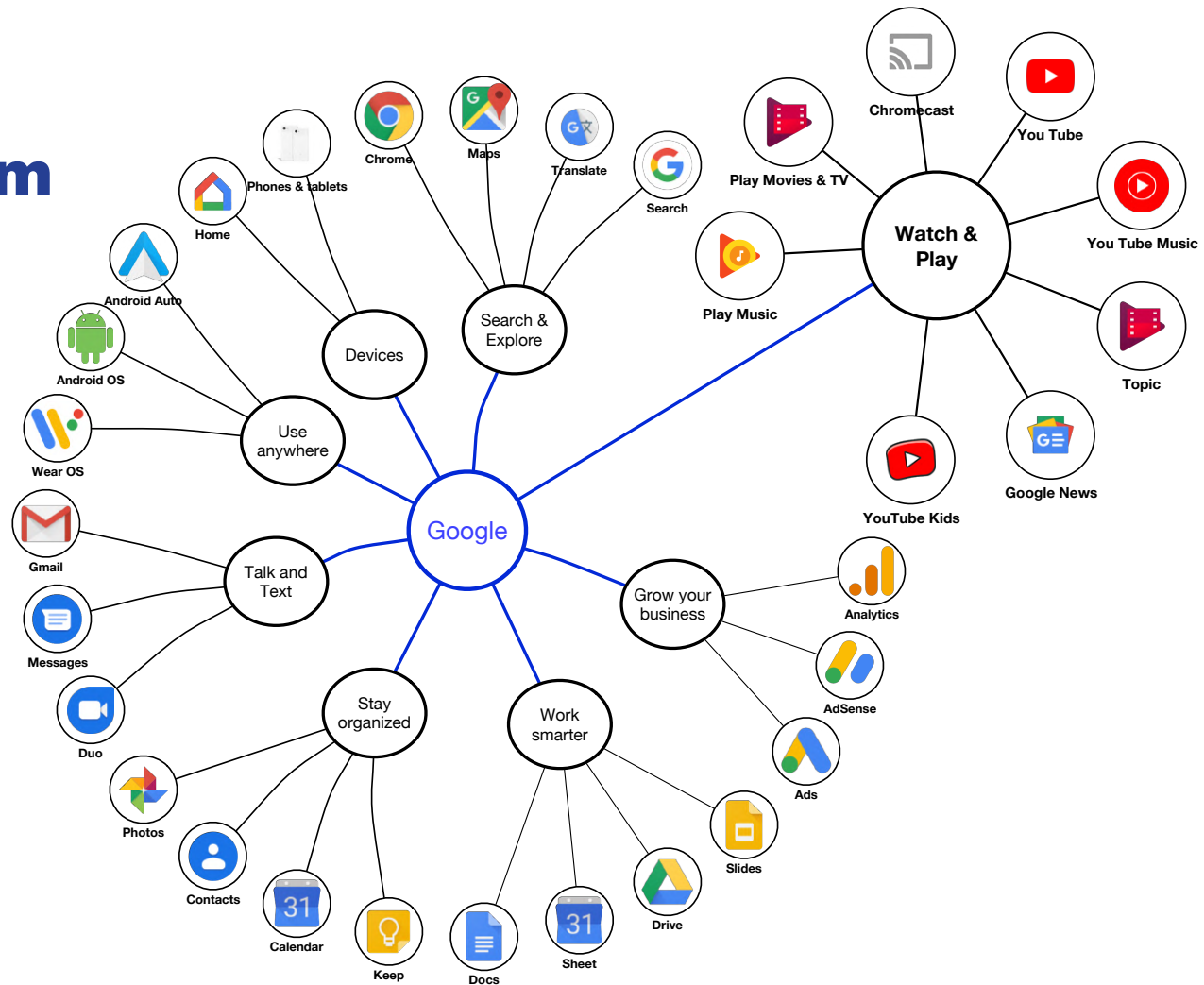
- Aggregators : Google News, Apple News,...
- Content centric experiences : Netflix, Spotify

> Mobile first, but pervasive.

> Personal : service ecosystem for my life

- Work : documents, spreadsheets, sharing, chat, conference, calendars...
- Wearable and self measurement : watches, health and food tracking
- “Smart home” : automation, surveillance, remote access
- Media access : music, series, videos, news,...

Google ecosystem



WeChat

- **Chinese ecosystem – 1.097 billion monthly active users**
 - **Social network** : friends / posts / text, video and audio chat
 - **Money** : mobile payments, user-to-user cash transfer, banking
 - **Work** : track work hours, share documents
 - **Services** : order Taxi, event booking, doctor booking, food delivery
 - **News** feed and search
 - **Games**
- **Wikipedia** : *WeChat can be considered as an 'ecosystem' whereby users are continually on WeChat, using the messaging service, posting content, following brands and using mini programs to find locations, buy products and pay for utility Bill's.*

Context : Public TVs and Radios

> First : Internet is the new distribution channel

- Deliver content on-line & on-demand (shift from linear)
- Broadcast **the same content to all** (same as linear!)
 - On-line is the fallback for real TV and Radio
- Create apps and websites : News, sports, radio, children,...

> BUT no paradigm shift?

- (Mostly) the same experience for all
- Social interactions mainly in / through social networks
- Better design, better quality (HD, images), more content

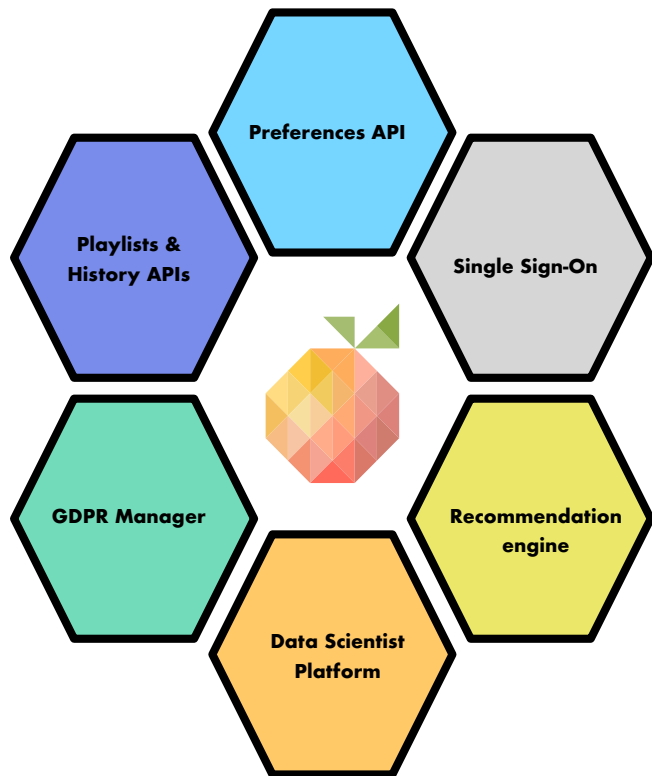
Value / relevance of personalisation

- **User-centric, personalised products rule the digital world**
 - Social Networks
 - My friends, my pages, my interests, my comments, my pictures, my shares,...
 - Media Players : Netflix, Spotify, Amazon Prime, YouTube, ...
 - My history, my playlists, my interest, my daily mix, my subscriptions,...
 - **User expects a personalised, cross-device, seamless experience**
 - It is the *de facto* standard.
- **Recommendation is required to address the content explosion**
 - Why would the user *search* when other *provide*?
 - Immediacy is the norm in media

The digital shift for broadcasters

Scope	Objective	Enabler
Define content proposal	The right content at the right time for the right person on the right device	Recommendation algorithms (personal data and content meta data)
User experience	Consistent, Cross Device	Single Sign-On
User finds his content	Direct access to favorites, Resume playback	Playlists and media history
Become Data Driven	Collect, store and process data	Data Pipeline, Metrics
Understand Users	Extract insights from data Create recommendation models	Data Science Platform
Empower user on data	User manages his data and his privacy	GDPR Manager
Empower user on content	User defines his experience	Personalisation service

PEACH



INTEGRATED

Services created to work together from the start

FLEXIBLE

Services offer a lot of configurations

Pick the one you want and use your own

OPEN

Source code available to stakeholders

A platform to create, evaluate and refine algorithms

COLLABORATIVE

Made by Broadcasters for Broadcasters

RTP – Portugal | SRG-RTS – Switzerland | BR – Germany | SR (Sweden)

Algorithms examples

> Home / welcome page

- **Goal** : lead the user to distinct content segment
- **Proposal** : collaborative filtering + maximise diversity + time scoring

> During media playback

> - **Goal** : Continue exploring content segment / specific subject

- Find similar content

> - **Proposal**

- Content based similarity algorithm
- Usage based similarity

Audience and relevance

- We are fighting to get the user time...
- The experience should be
 - Pleasant, fun, entertaining, relaxing ?
 - Interesting, informative, educational,...



Audience and relevance

- **Can PEACH do better than commercial solutions ?**
- **What do you think of an algorithm that**
 - Causes a lot of users to watch the content
 - Causes increased watching time and users to come again
 - By selecting funniest cats video in you archives?
- **A trending algorithm?**
 - For News?
 - For Music?



Audience and relevance

- > How do you define public value?
- > How do you measure it?
 - Some are trying with a panel
- > Recommend more / only “valuable” content?
 - Why is content of “low” value available?
 - Because people like it.
 - Long term effect unknown
 - And hard to measure



The sweet – *and sour* – spot of entertainment

We all have a natural tendency for the easy, sweet

- GAFA aims for addicted customers trapped in their ecosystem

How can public valuable content be seen when user only use GAFA's apps and services?

- **We cannot.**
- ➡ Relevance is a requirement
- “**Perfect**” user experience is the norm

Challenge : provide real value

- Content valued **by the user**
- Content of value for the society
- We need to be trustworthy

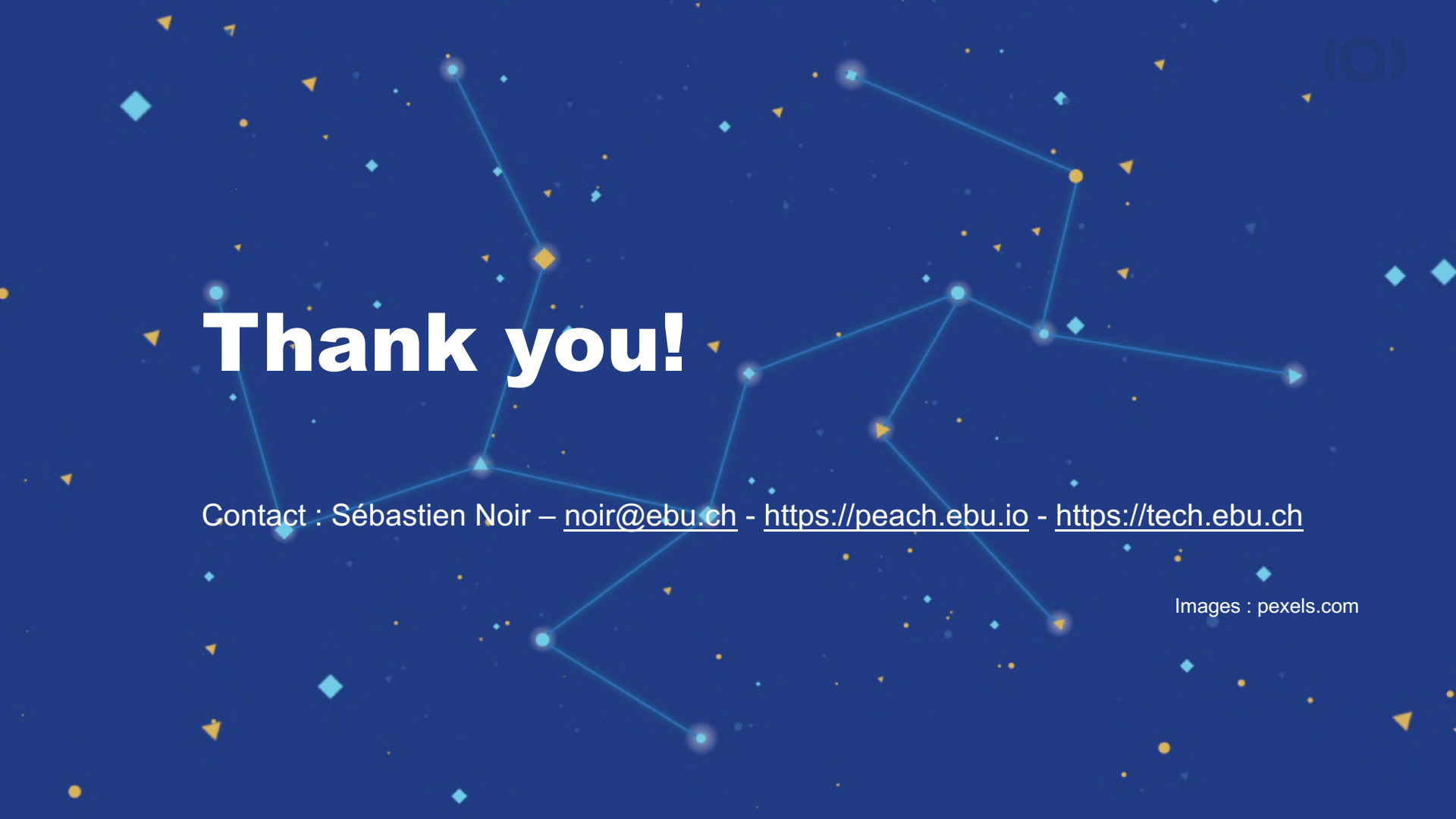




Broadcasters should

- **Become user-centric**
- **Collect user data**
 - The core asset of digital companies
- **Create their own algorithms**
 - No black box should be an editorial line
- **Define their own metrics**
 - What goal would you like to reach ?
 - More clicks or public value, more diversity, better loyalty
- **Be transparent**
 - Inform about data collection / processing
 - Do not share data to others
- **Let users choose...**





Thank you!

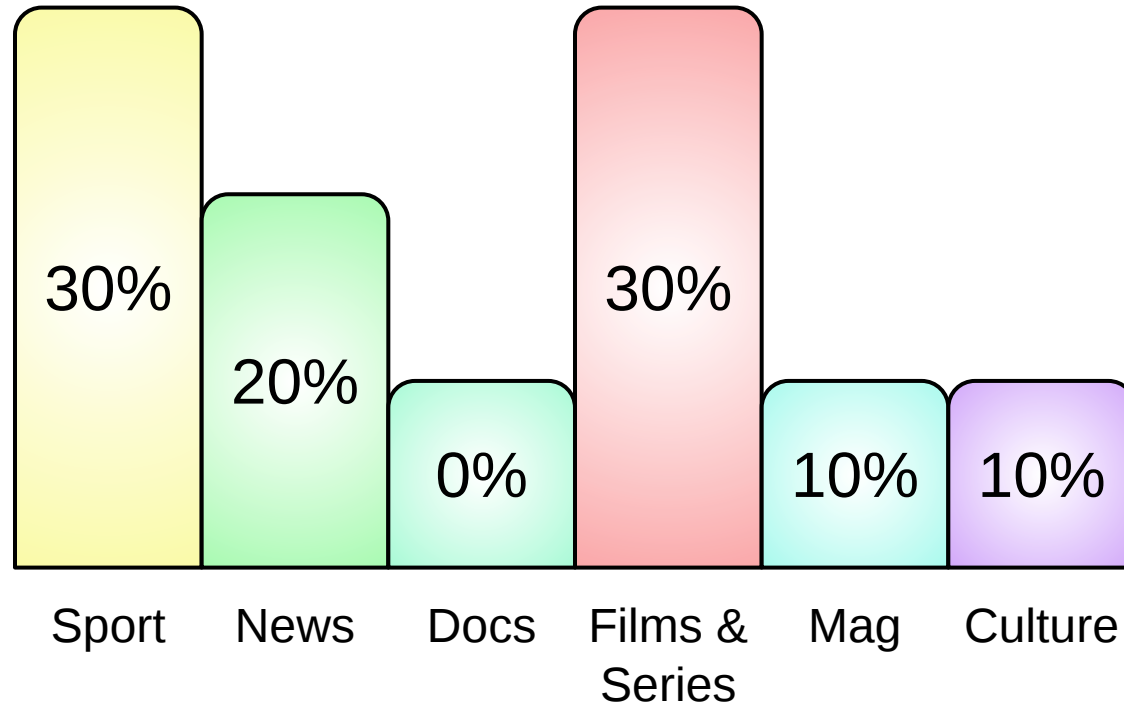
Contact : Sébastien Noir – noir@ebu.ch - <https://peach.ebu.io> - <https://tech.ebu.ch>

Images : pexels.com

Backups

The background is a deep blue gradient. It features a constellation of light blue lines connecting various points, some of which are small white circles with a soft glow. Scattered throughout the background are numerous small, semi-transparent geometric shapes, including yellow and orange triangles, diamonds, and circles. The overall aesthetic is clean and modern, with a focus on geometric patterns and a cool color palette.

A proposal for transparency ?



Recommendation / Personalisation

Personalisation : The user experience is different for different users

(Content) Recommendation : User gets personalised content selection

- Based on explicit choices (not so common)
- Based on usage : media history, interaction
- Based on profile : who I am
- Based on my social network
- Based on context : location, device, time, social network,...



New comers do not follow the rules

> Netflix : New distribution scheme

- 1999 - Flat fee for direct DVD mail shipping to the user
- 2007 - Streaming distribution added
- 2010 - Streaming only
- **User centric based on algorithmic recommendations**

> Google News (and others)

- Aggregates content from multiples sources
- Uses **active** tracking of user to improve relevance