



Yle's metadata in 2020 — How to answer the unknown needs of the future?

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In collaboration with Sami Mattila and Jari Ruotsalainen.



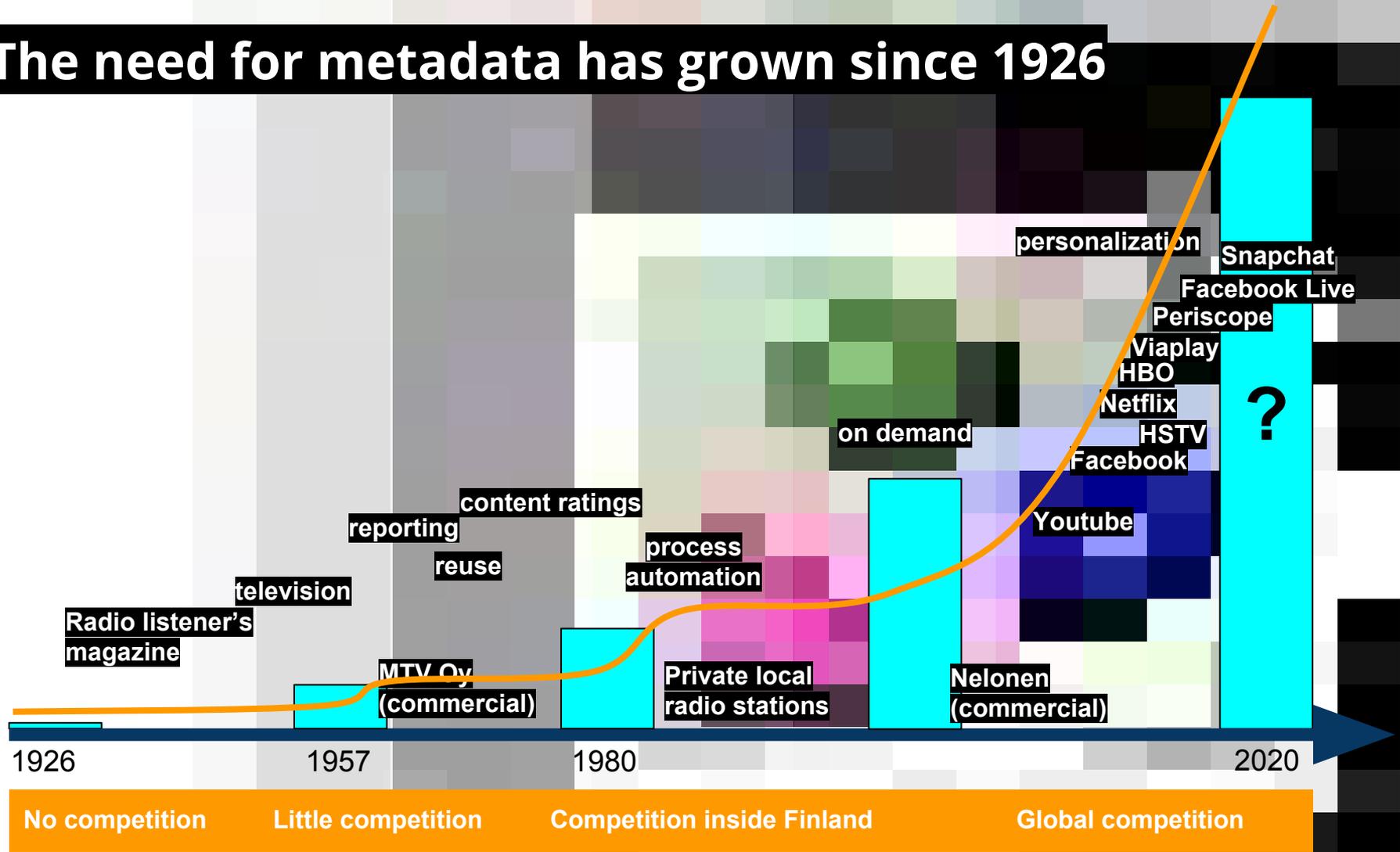
Outline

- external **challenges**
- cool **examples**
- annoying **problems**
- what we **need**
- the **solution**

Yle's metadata in 2020 —

How to answer the unknown needs of the future?

The need for metadata has grown since 1926



In year 2020 Yle will...

1. **concentrate on quality instead of quantity.**
“...we will emphasize long lifecycles, ...open our archives”
2. **renew television.**
“We will make Yle Areena online service the most important distribution channel of the new television, ...”
3. **take radio online.**
“...develop easy-to-use audio services, particularly for portable and in-car devices.”
4. **improve the user experience of our online services.**
“...anywhere and anytime, ... a better personal user experience.”

— *Yle Strategy 2020, Eight essential development objectives.*

Homeland 08/06/2016 at 9:00 am

Traditional TV viewing decreased - Yle Areena became Finland's most viewed television service

Smartphones and tablets are transferred to television viewing not only outside the home, also inside the home. At home no longer sit in the living room nökötetä ordinary television programs, but programs are increasingly more in the bedroom, the kitchen and even the bathroom. And more and more often viewed as recordings.

Suosittelee 621 henkilöä suos



“79 percent of respondents said that they watch television programs from Yle Areena and 70 percent via traditional TV.”

Top Stories

Homeland 7:09 pm

A rare summer storm strikes soon every summer such a hit in Finland



Heart patient in danger of death in
- surgery was not possible due to
Sonera's mobile network to reach

Trends that affect Yle

Amount of offering rises

**Global competition
in content and services**

Easily available content
anywhere, anytime

Content that adapts
to the device

**More ways to receive
the content**



**Personalized content and
customized user experience**

New content and service formats

“Appsifying” continues

Content that enables automation and
publishing content via 3rd party services

Big data, APIs and machine learning



How to create the best service for YOU?

- your need (latest news, relax, automated children care, fall in sleep, ...)
- your usage situation (home, transport, waiting, gym, conference, ...)
- your mood (tired, bored, happy, sad, ...)
- your topic of interest

⇒ Building a media experience that is so personal and answers your needs and situation so well, that you can only be like WOW! Everything feels just right.



What metadata do we need to address the future needs of ~~the~~ you?



Cool examples on using metadata



Example 1: Metadata for the people

yle AREENA TV Selaa ▾ Suorat TV-opas Q Hae



Samantapaan alla

Jakso 1: Hiljaiselo Öllölässä

🕒 25 min 📅 ti 8.12.2015 ⏱️ 1 kk 26 pv 👁️ 3668 katselua

Heikompiensaisten hoito sysätään usein yhteiskunnan vastuulle. Risto ja Leer kokeneet kovia ja saaneet tukea. He haluavat myös auttaa ja jakavat kotinsa kodiittomien kissojen kanssa. O: Erkki Määttänen.

LINKIT JA ARTIKKELIT

Samantapaan alla

OHJELMAN TIEDOT	LÄHETYKSET
Tuotantoyhtiö: YLE, Suomi	ti 8.12.2015 20.00 Yle TV1
Kuva: 16:9, HD	ma 14.12.2015 9.30 Yle TV1
Ääniraidat: suomi stereo	ke 9.12.2015 20.00 TV Finland
Tekstitys: ohjelmatekstitys (suomi)	ma 14.12.2015 11.45 TV Finland

Katsottavissa vain Suomessa

DOKUMENTIT HENKILÖKUVAT FAKTA

Piilota lisätiedot ^

BBC Sign in News Sport Weather Shop Earth Travel More Search

one 'Allo 'Allo!

Home Episodes Clips



Sorry, this episode is not currently available

The Fallen Madonna

Series 1 Episode 1 of 7

Colonel Von Strohm wants to hand René over to the Gestapo along with the painting of the get rid of Herr F...

Show more

Credits

Flying officer

YouTube liljhammer



Lilyhammer - Season 3 Official Trailer - Netflix [HD]

Netflix 158,096

Published on Nov 11, 2014

Frank "The Fixer" Tagliano is back... and still...

New episodes are available November 21, but...

Category: Entertainment License: Standard YouTube License

NETFLIX Selaa ▾



Lilyhammer

★★★★☆ 2014 16 3 kautta

Entinen gangsteri Frank Tagliano todistaa mafiaa vastaan ja pääsee palkaksi todistajien suojeluohjelmaan. Norjaan.

Pääosissa: Steven Van Zandt, Trond Fausa, Steinar Sagen
Lajityypit: TV-sarjat, Rikossarjat, Amerikkalaiset TV-sarjat
Kategoriat: Omalaatuiset

Sopranos-tähti Steven Van Zandt esiintyy pääosassa tässä

ruutu OHJELMAT ▾ URHEILU ▾ LAPSET KANAVAT

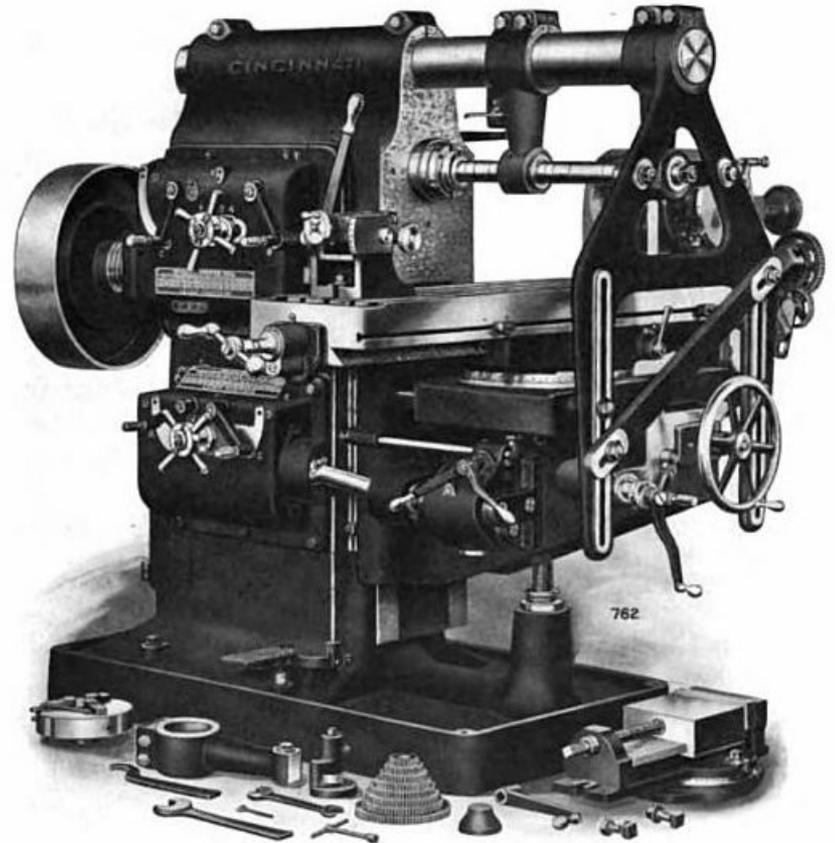


3 - Vaikeita valintoja

30.11.2015 klo 20:58 - Yli 5 päivää jäljellä - Kesto 60 min

Example 2: Metadata for the machine

- making big data understandable
- recommender systems
(e.g. do not recommend children's programs to adults)
- automating our processes
- ...





Example 3: Packaging the content

- **Needs:**
 - A tool to promote Yle Areena's content in relevant ways to the audience.
Examples: theme, topic, genre, usage situation, brand, series, "channels" ...
- **Solution:** A "package"
 - A marketing tool for promoting a group of content (programs, articles, etc) to one or several audiences.
 - The content can be selected automatically or manually.
- **The first version was implemented this year in Yle Areena:**
 - A (simple) rule-based system for selecting automatically content based on content metadata (classifications, such as topic, genre, audience).
 - User-interface for the editorial staff to manually pick content and to adjust rules
 - API for accessing the packages
 - Different visualisations based on device, application, package business type, ...

Selaa Areenaa ▾

Suorat

TV-opas

Radio

LASTEN AREENA

Omat suosikit 3

Jatka ▶



NÄYTÄ LISÄÄ +

packages →



Katsomiesi perusteella



series Sarjat

SUOSITELLUT

UUSIMMAT

SUOSITUIMMAT

VIELÄ EHDIT

A-Ö

TULOSSA

Ulkomaiset sarjat

Kotimaiset sarjat

Jännitys

Huumori

links to other packages

individual content
(series, packages,
single programs, ...)**Outlander - Matkantekijä**

Uusi sarja

52 MIN EILIN 21.06 SARJA

**Rebellion - verellä ja sydämellä**

Uusi sarja 1/5. Aku Louhimiehen ohjaama Irlantilaisdraama kuvaa vuoden 1916 pääsisäise...

52 MIN 2 PV SITTEN SARJA

**Petos**

8/10. Oikeusministeriö painostaa Nannaa luopumaan syytteistä Energreeniä vastaan, ja hän puolestaan painostaa Madsia

**Happy Valley, varjojen laakso**

Uusia jaksuja.

**Justimus esittää: Fuck the Police**

1/8. Rappärin urasta haavelevat kaverukset Jyrki ja Matias vasaävät uutta demoaan.

foreign series

Ulkomaiset sarjat

SUOSITELLUT

UUSIMMAT

SUOSITUIMMAT

VIELÄ EHDIT

A-Ö

TULOSSA

Sarjat

**Gran Hotel**

Espanjalainen draamasarja uusintana

4 JAKSOA

**Rita**

Opettaja Rita aiheuttaa alati konflikteja.

4 JAKSOA

**Holby Cityn sairaala**

BBC:n sairaalasarja saa jatkoa.

**Naapureita ja ystäviä**

Rakastettavien brittisarjojen ystävät pääsevät tutustumaan pikkukylän elämään 50-luvulle sijoittuvassa sarjassa

**Hakekaa kättilö!**

Koskettava tosipohjainen draamasarja Lontoon East Endin köyhien lapsiperheiden ja heitä auttavien kättilöiden,

yle AREENA digikim@iki.fi HAE VALIKKO

Selaa Areenaa [^] Suorat TV-opas Radio **LASTEN AREENA** Omat suosikit 3 Jatka ▶

Sarjat	series	Fakta	factual	Historia	history	Uutiset	news
Elokuvat	movies	Dokumentit	documents	Itutuuri	culture	Urheilu	sport
Huumori	humor	Luonto	nature	Musiikki	music	—	
Nuoret	young	Ajankohtaisohjelmat	current	Tiede	science	Lapset	children

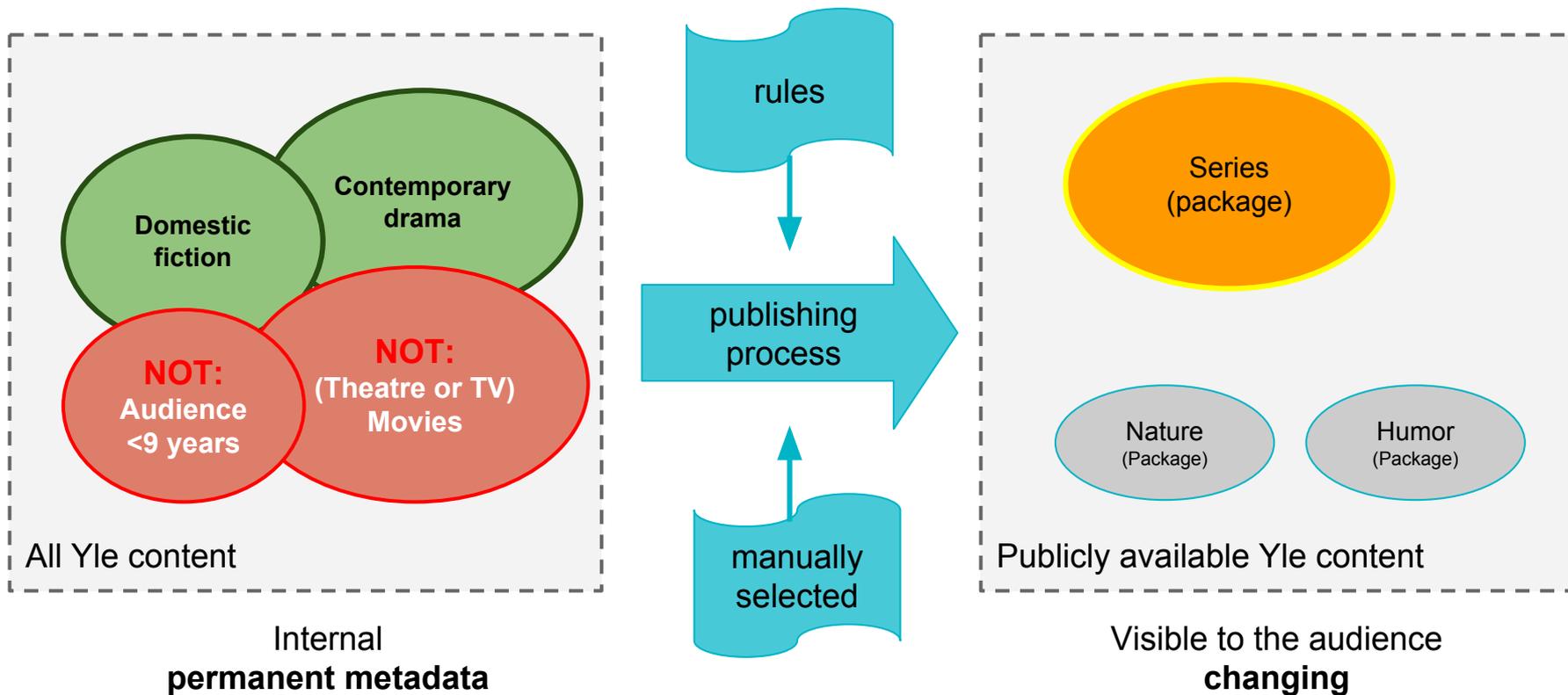
Kaikki TV-ohjelmat Ohjelmat A-Ö Ohjelmat kanavittain Katsottavissa ulkomailla Elävä arkisto Ohjeet På svenska

Rebellion - verellä ja sydämellä
Aku Louhimiehen upea Irlannin vapaustaistelusta kertova sarja kokonaisuudessaan

Siskonpeti
Sekä 1. että 2. kausi naurattavat edelleen



Rules for defining the content package





Sarjat

series

Tallenna



Paketin perustiedot

Sisällön määrittely

Poiminnat

Esikatselu

PERUSTIEDOT

FI SV

OTSIKKO

Sarjat

title

LYHYT KUVAUS

Paketin lyhyt kuvaus

tagline

KUVAUS

Paketin julkinen kuvaus

description

SISÄINEN KUVAUS

Paketin sisäinen kuvaus (ei julkaista)

internal description

LISÄTIEDOT

FI SV

PAKETIN TUNNISTEPOLKU

areena

tv



KOROSTUSVÄRI



#8b0dc0

color

PAKETIN TYYPPI

Genre

business type

Sarjat

Tallenna



Paketin perustiedot

Sisällön määrittely

Poiminat

Esikatselu

Hae sisältöä

TV Radio

Suodata luokitteluja

include these

HAKUTULOKSET

	PAALUOKKA / PLASMA / 31-352 1 Uutiset		
	ALALUOKKA / PLASMA / 31-3434 1 Uutisohjelma		
	SISALTOLUOKKA / PLASMA / 31-296 1 Uutisohjelma		
	YHDISTELMALUOKKA-A / PLASMA / 31-17345 01 Uutiset		
	YHDISTELMALUOKKA-A / PLASMA / 31-26 1 Uutisohjelma		
	YHDISTELMALUOKKA-D / PLASMA / 31-8 1 Uutis- ja ajankohtaisohjelma		
	KOHDERYHMA / PLASMA / 31-5 1 Koko yleisö, suuri yleisö		
	ALALUOKKA / PLASMA / 31-28 1.1 Uutisbulletiini, uutislähetys		
	YHDISTELMALUOKKA-A / PLASMA / 31-383		

PAKETIN SISÄLTÖ

	YHDISTELMALUOKKA-A / PLASMA / 31-385 5 Kotimainen fiktio-ohjelma	
	YHDISTELMALUOKKA-A / PLASMA / 31-380 6 Ulkomainen fiktio-ohjelma	
	SISALTOLUOKKA / PLASMA / 31-93 8.79 Nykydraama	

ESTETTY SISÄLTÖ

exclude these

	KOHDERYHMA / PLASMA / 31-100 2-9 vuotta	
	ALALUOKKA / PLASMA / 31-85 8.10 TV-elokuva	
	ALALUOKKA / PLASMA / 31-142 8.14 (Elokuvateatteri) elokuva	

Sarjat

Tallenna



Paketin perustiedot

Sisällön määrittely

Poiminat

Esikatselu

 Saatavilla olevat Tulevat

Näytä kaikki

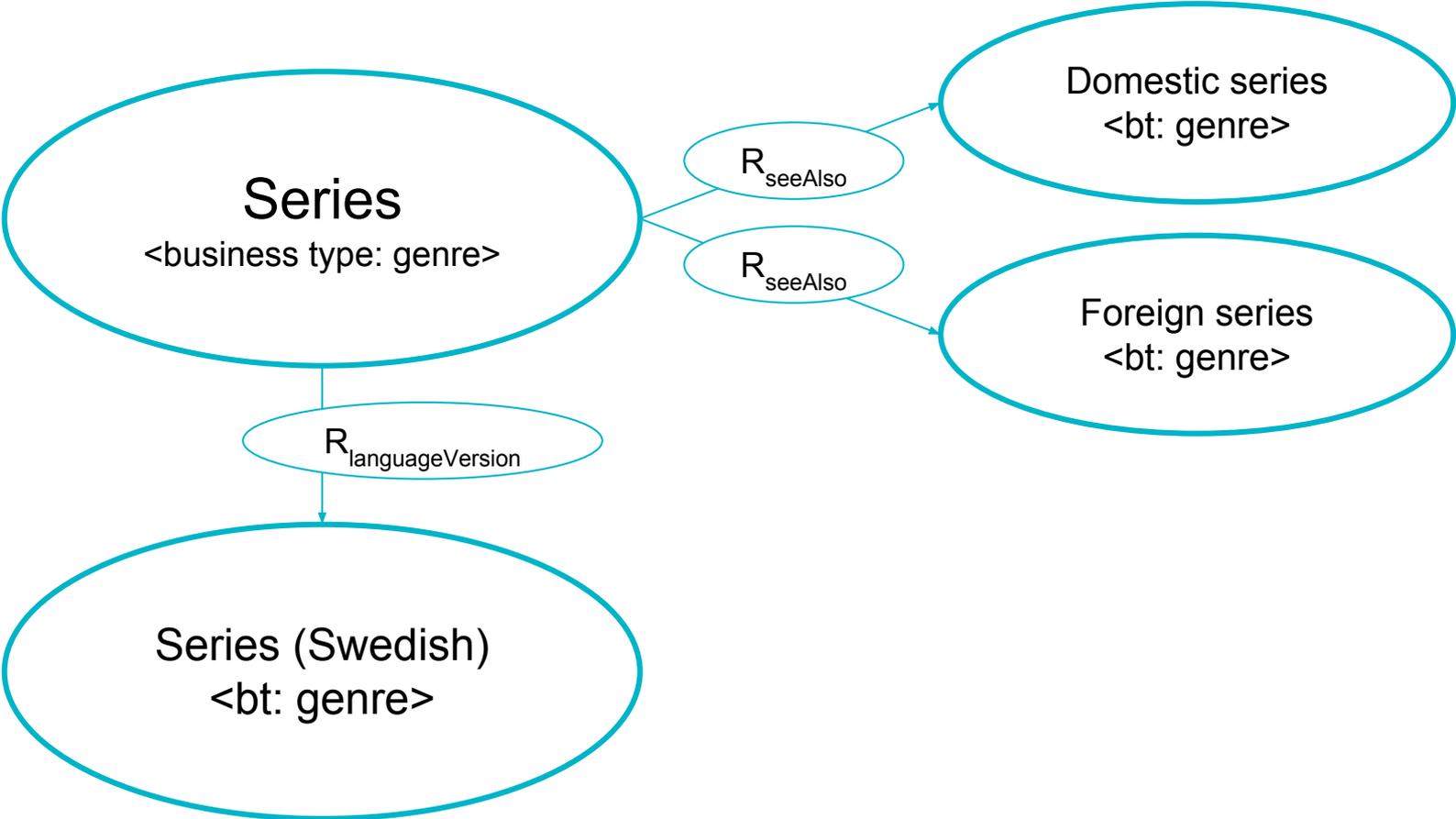
POIMINNAT

manual pics

	TV-ohjelma / 1-3295587 Outlander - Matkantekijä		
	TV-ohjelma / 1-3261314 Rebellion - verellä ja sydämellä		
	TV-ohjelma / 1-2296163 Petos		
	TV-sarja / 1-2312043 Happy Valley, varjojen laakso Uusin jakso		
	TV-ohjelma / 1-2369623 Justimus esittää: Fuck the Police		
	TV-sarja / 1-3257693 Naapureita ja ystäviä Uusin jakso		
	TV-sarja / 1-3430975 Sekasin		
	TV-sarja / 1-3432930 Kotikatsomo: Ilonen talo Uusin jakso		



A network of packages



```
- data: {
  id: "30-34",
  type: "Package",
  - image: {
    id: "13-30-34",
    type: "ImageObject",
    available: true,
    version: 1455697689
  },
  - coverImage: {
    id: "13-30-34-cover",
    type: "ImageObject",
    available: true,
    version: 1455697690
  },
  color: "#8b0dc0",
  - title: {
    fi: "Sarjat",
    sv: "Serier"
  },
  - description: {
    fi: "",
    sv: ""
  },
  - tagline: {
    fi: "",
    sv: ""
```

Basic info

```
{
  - meta: {
    count: 4
  },
  - data: [
    - {
      type: "Relation",
      predicate: "seeAlso",
      - object: {
        id: "30-97",
        - title: {
          fi: "Ulkomaiset sarjat",
          sv: "Utländska serier"
        },
        type: "Package"
      }
    },
    - {
      type: "Relation",
      predicate: "seeAlso",
      - object: {
        id: "30-98",
        - title: {
          fi: "Kotimaiset sarjat",
          sv: "Inhemiska serier"
        },
        type: "Package"
      }
    },
    - {
      type: "Relation",
      predicate: "seeAlso",
      - object: {
```

Related

Yle schema (BETA)

version: 0.9 BETA

updated: Tue Feb 23 09:40:49 2016

contact: kim.viljanen@yle.fi

JSON schema version: [yle-schema.json](#) (incomplete beta)

Introduction

Programs-API

The Programs-API contains metadata about Yle's TV and radio programs, series, schedules, channels etc.

Packages-API

The Packages-API contain packages of (currently TV and radio program) content. A "package" in this context is defined as *a marketing tool for promoting selected content to one or several audiences.*

Examples of packages:

- Genre package: a "history" package may contain TV series and TV single episodes related to historical events.
- Target group package: a "childrens" package may contain TV programs intended for children under 12 years.
- A TV series package: the "Foyle's war" series constitute one (series) package containing season packages which contain individual episodes.
- A theme package: The "Finland 100 years" package may contain individually selected programs and articles related to the theme year.
- Any combination of above or any other package reason.

Packages are created manually or automatically based on editorial and marketing needs.

For additional information and a visualization, check: [Packages-API: data model documentation](#)

Representing the business objects as data

This schema specifies how the programs, packages and other business objects are represented as API responses.

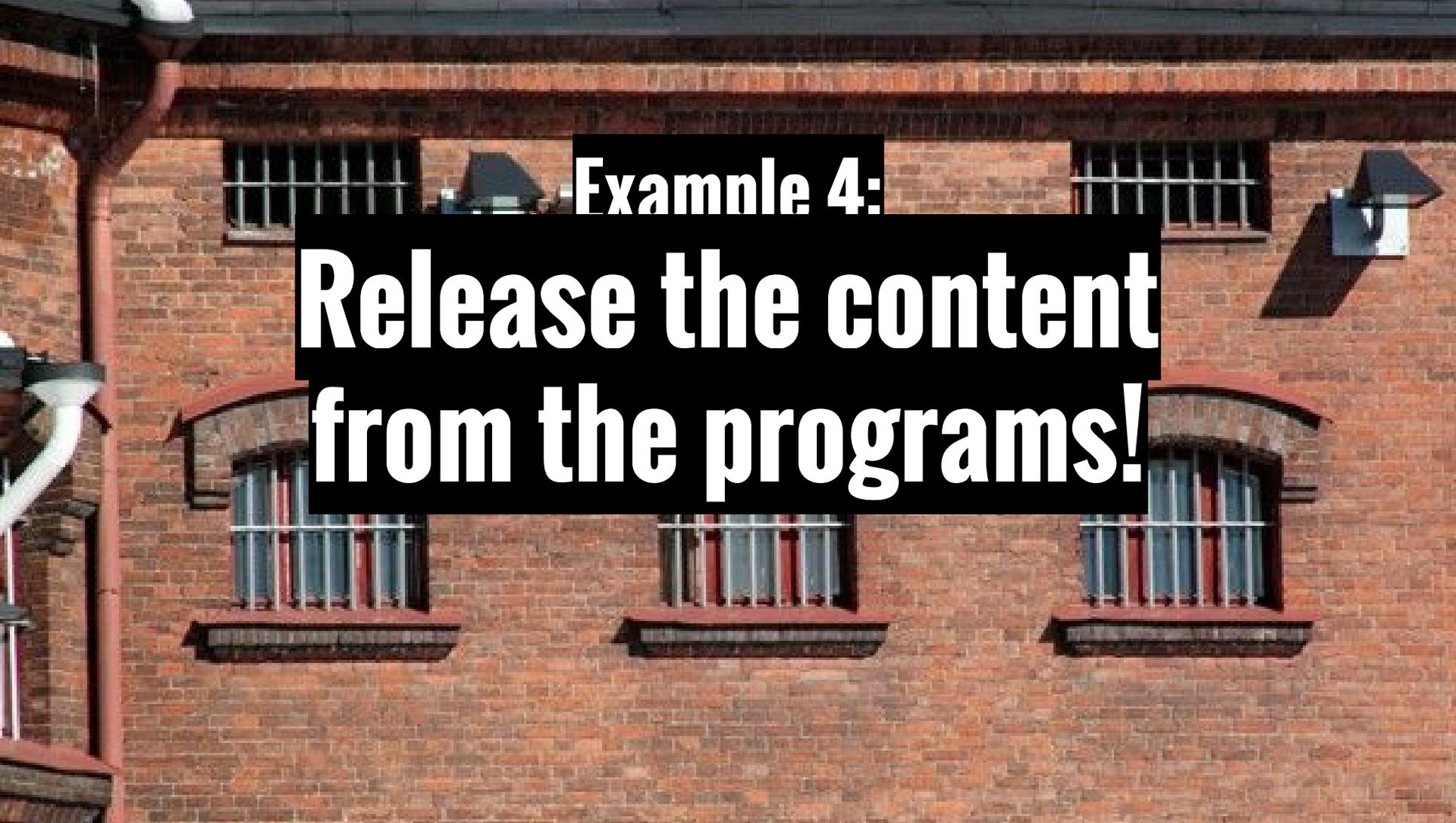
The schema is based on a graph based approach, following the practices of [Linked data](#), [JSON-LD](#) and [RDF](#). The schema classes and properties are designed to be (when applicable) compatible with [Schema.org](#), [Dublin Core](#)

Validating your data against the Yle Schema

The Yle schema is also available as a machine-readable [JSON schema.json](#).

To validate data against the JSON schema, use for example [this website](#).

<http://yleisradio.github.io/schema/>

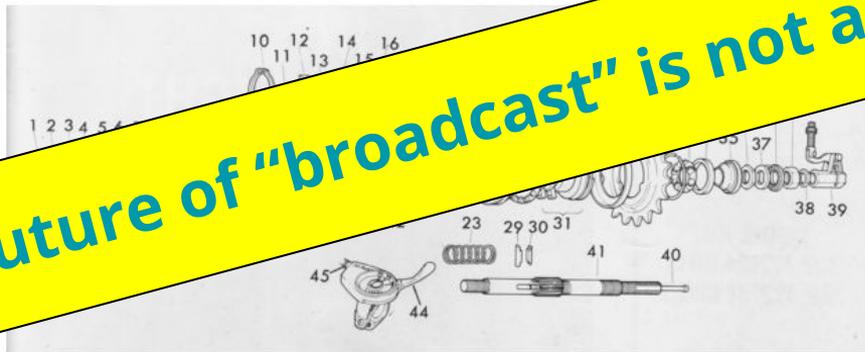
A photograph of a brick building with several windows, some of which have metal bars. A large black rectangular box is superimposed over the center of the image, containing white text. The text reads "Example 4:" in a smaller font, followed by "Release the content from the programs!" in a much larger, bold font. The background shows the texture of the brick wall and the structure of the windows.

Example 4:

**Release the content
from the programs!**

THE FUTURE OF NEWS IS NOT AN ARTICLE

By Alexis Lloyd on October 20, 2015



The future of “broadcast” is not a program?

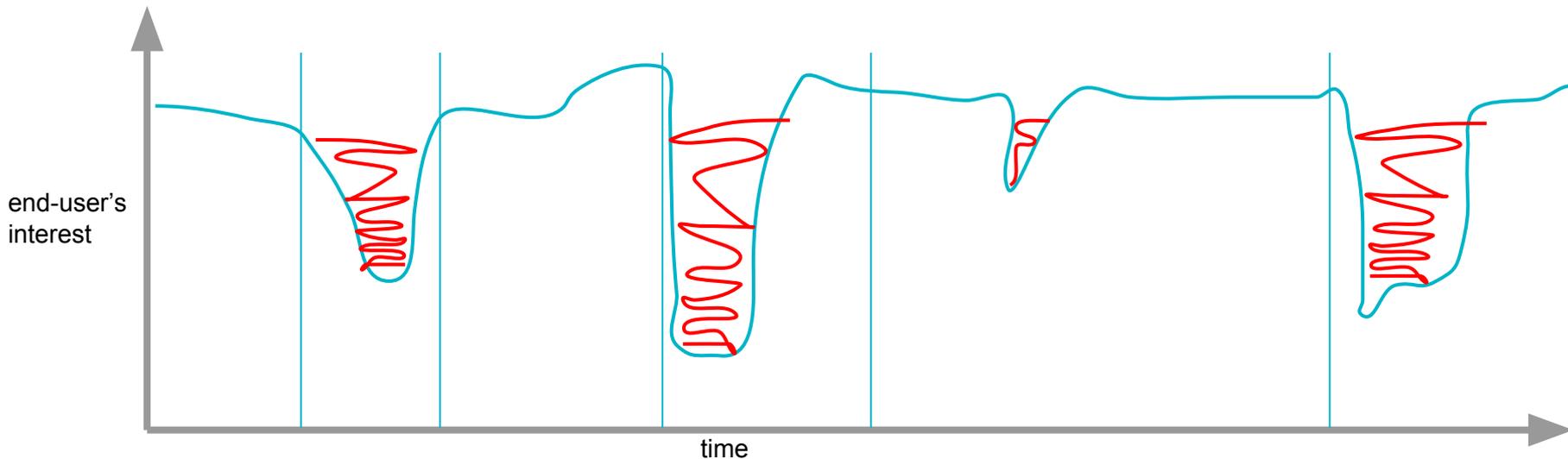
In May of this year, Facebook announced Facebook Instant Articles, its foray into innovating the Facebook user experience around news reading. A month later, Apple introduced their own take with their Apple News app, which allows “stories to be specially formatted to look and feel like articles taken from publishers’ websites while still living inside Apple’s app”.

There has been plenty of discussion about what these moves mean for the future of platforms and their relationships with publishers. For platform discussions aside, let’s examine a fundamental assumption being made here: both Facebook and Apple, who arguably have a



End-user's interest levels varies

example: magazine program, news broadcast, radio channel...

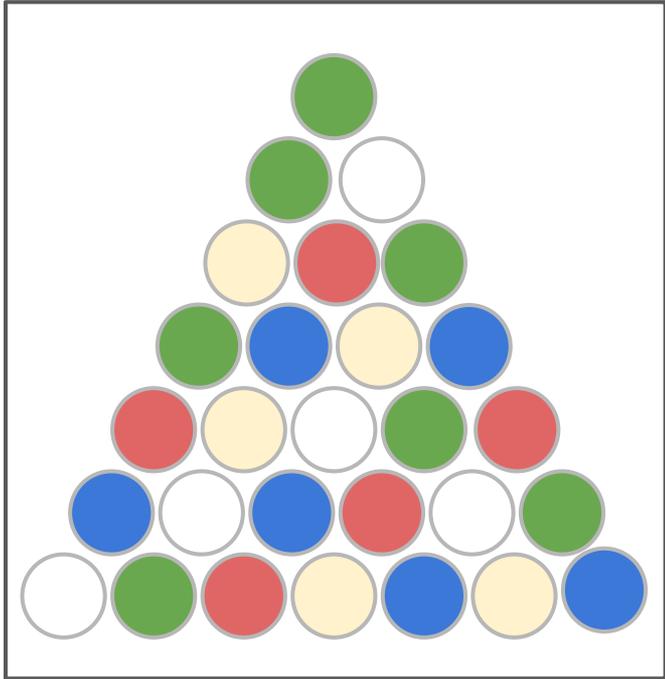


Describing the whole program is not enough to find the interesting parts from the uninteresting parts

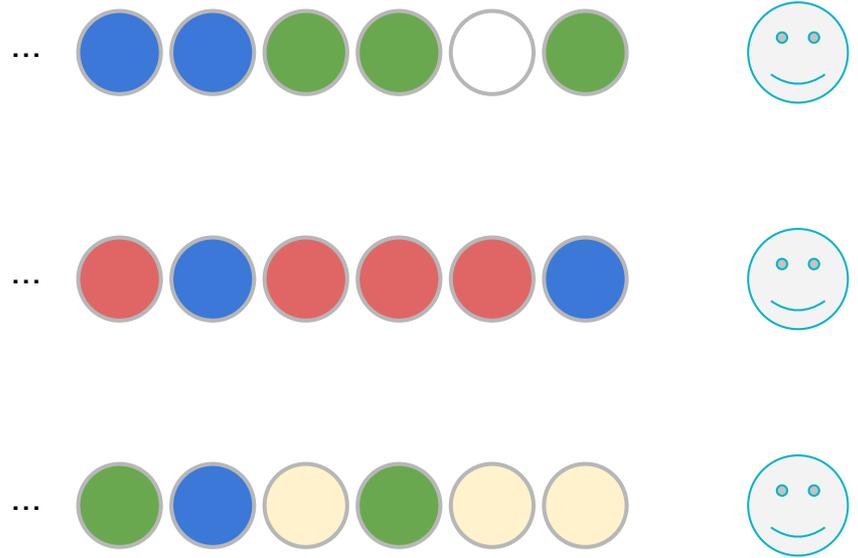
⇒ **metadata should describe the smallest individually usable content chunk (particle)**



Prioritized list of content particles with metadata



Yle content particles right now



Personalized content experience

Case example

Reuters TV

Reuters TV is your news, ready when you are



Choose the length of your news show



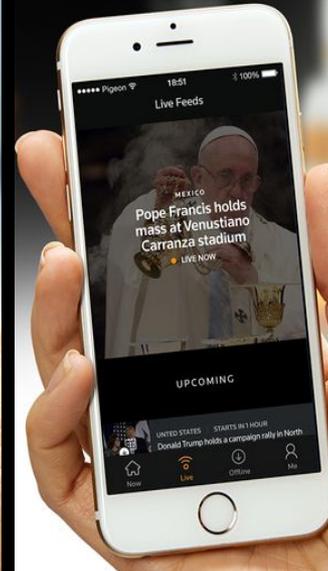
Skip the stories you don't want to watch



Auto-download for offline viewing



Witness live global events from wherever you are



Work in progress

Personal audio?



Kim's personal radio station

Playing now: News & weather

MORE!

ABOUT CURRENT TOPIC

NEXT

TOPIC



Next programs:

Hints for chili growing

"Queen" in Finland

Hist..



Smart content = particles with clever metadata

- Smart = the user experience feels smart from the end-user perspective
 - e.g. personalized programs
- Content that supports automation on the smallest scale
 - particles = smallest possible independent content chunks
 - e.g. many versions of the “same” content: e.g. different lengths
- Metadata that supports personalization
 - ⇒ metadata that supports the personalisation, e.g. “importance”, “more details about this topic if you so choose”, ...
- Examples on new content types: One song music particle (song+story), automatic particles (extremely local robotic weather report?)
- Example on disappearing program types: Magazine programs, News broadcasts



Summary of the cool examples

- **visible metadata:** optimized texts and images for different devices, audiences, usage situations
- **data for the machine:** understanding big data, recommender systems
- **packaging:** metadata that enables grouping and browsing content
- **smart content particles:** content should be created in the right size with suitable metadata to enable automation such as personalization
- customer needs and business needs change fast



The reality

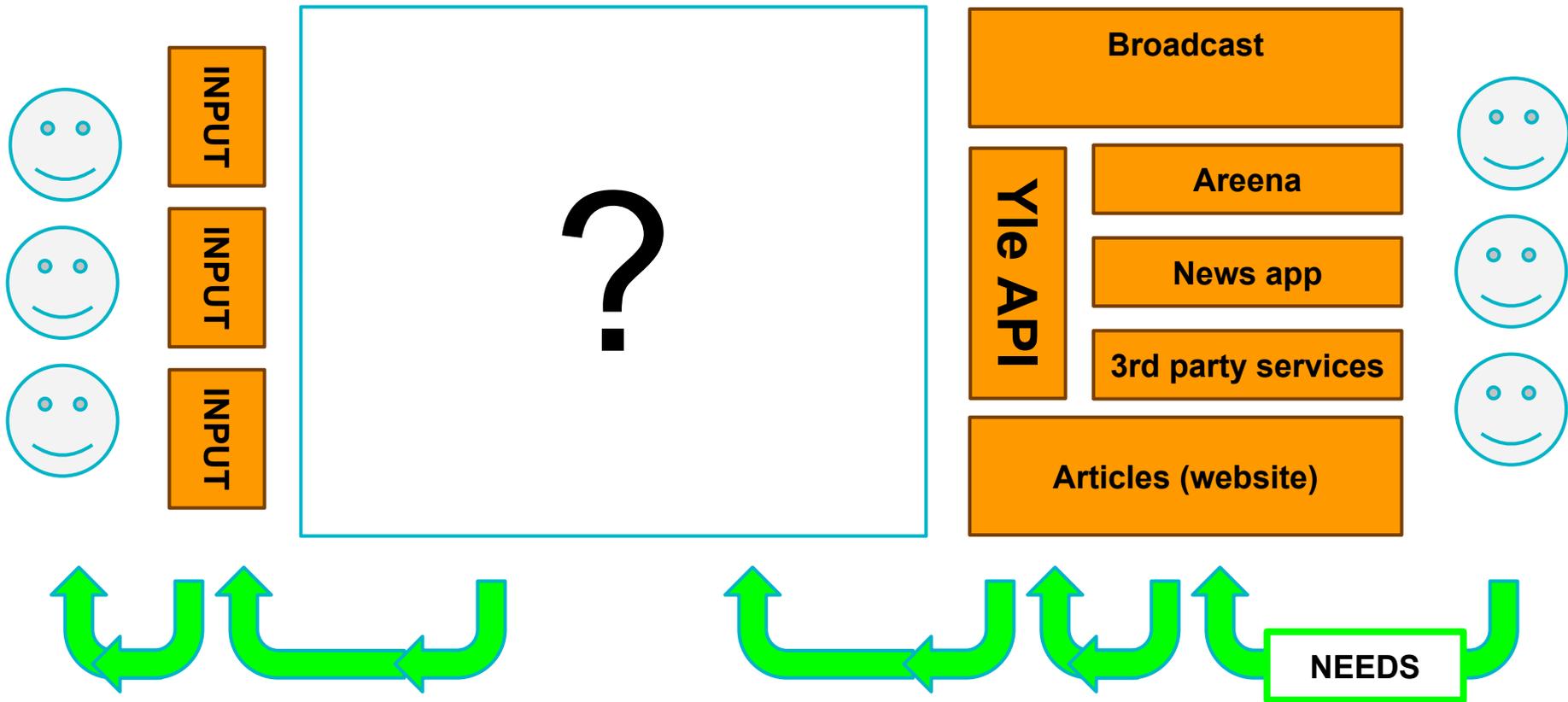


Yle's metadata problems

- We do not know exactly what we need in the future
- End-user applications need information which we do not produce at the moment
- A quite large organization, metadata is produced in many places
 - ⇒ metadata creation is difficult to control and coordinate
 - ⇒ ownership of metadata is divided, no single owner the metadata
- Lots of interdependent IT systems, lots of integrations
 - ⇒ Changes are slow and complicated
 - ⇒ Unified, company-wide approach for metadata is difficult to implement
 - ⇒ Metadata related development and prioritization is decentralized
 - ⇒ This tend to maintain support for past needs (broadcast , reporting , etc.), not to current and future needs



Yle's metadata goes through a mystery box





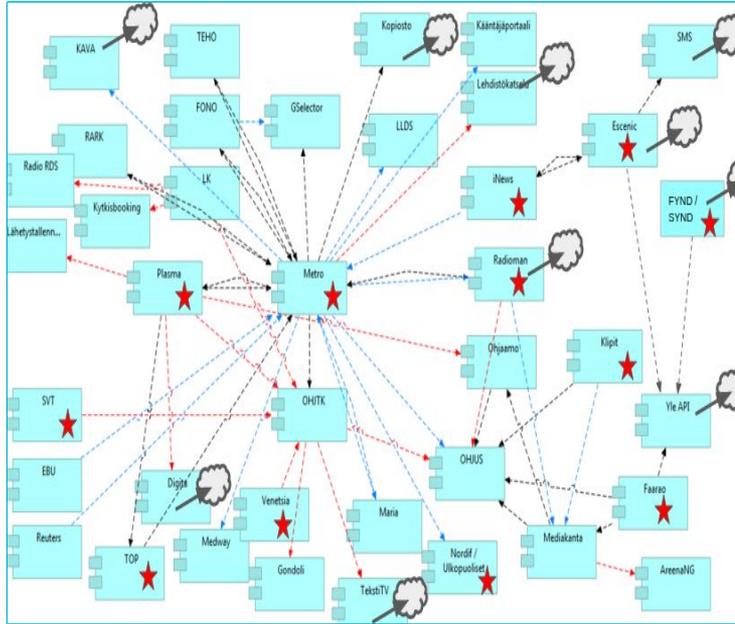
...and the inside of the mystery box is complicated



INPUT

INPUT

INPUT



Broadcast

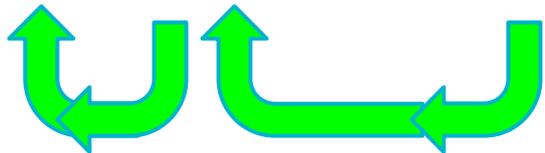
Yle API

Areena

News app

3rd party services

Articles (website)





Adding a new metadata field is expensive and slow

Example: Adding one new metadata field to tv and radio programs require changes to many systems before it is visible in all Yle Arena applications on different devices.

4

+ 4

+ 1

(+ 10)

Sources

Systems between

API

(Apps for different devices)

If every individual change takes a few days to implement and test + project management + teaching internal users + ... The whole addition of a single field means 20-40 days of work. (á 1000 €)



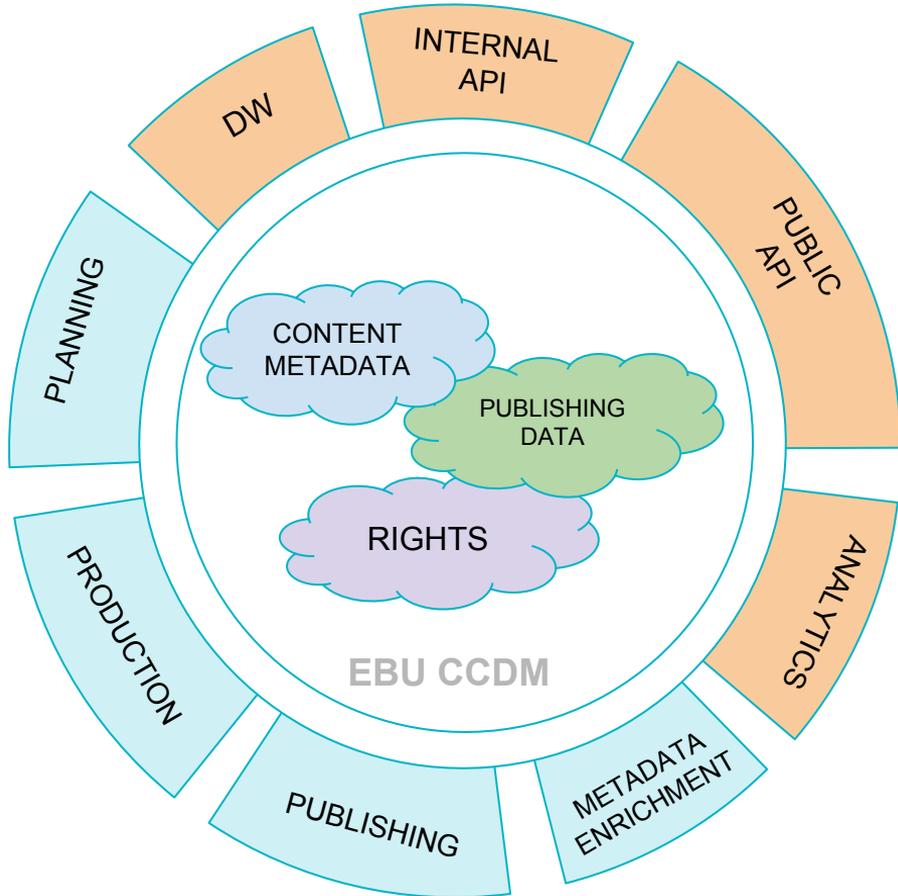
Alternative: the Norwegian way? A metadata bus?



INPUT

INPUT

INPUT



Broadcast

Arena

News app

3rd party services

Articles (website)

Yle's metadata in 2020 —

How to answer the unknown needs of the future?



Current
Yle

+



+ €



Future
Yle

**How much and what metadata
does Yle need in year 2020?**





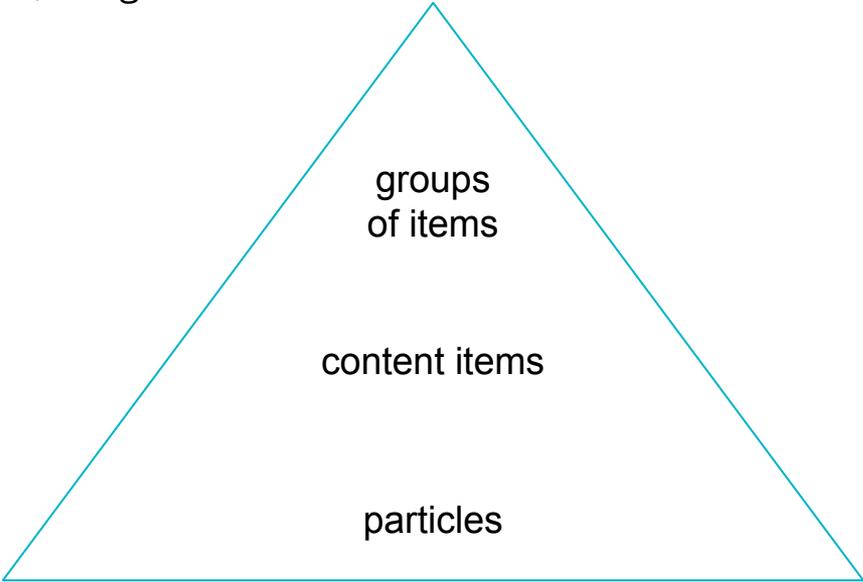
Experiment: Lets make a list of metadata we need to describe content items (editorial objects)!

Metadata field	Customer value
e.g. title	
 easy to fill	 difficult



Three levels of granularity

- groups of content: series, seasons, products, theme, topic, channel, packages...
- content item: program, episode, article, image...
- particle, clip, segment...



yle The process

Identifying metadata fields

Business value estimation

Priorised metadata fields

Dublin Core

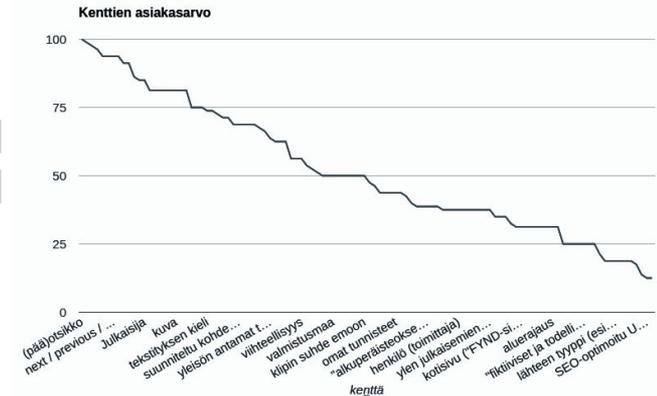
Schema.org

Yle API



Customer value (0-5)
Value for Yle (0-5)
Value for society (0-5)

Value for end-user	
0	No
1	Little
2	Somewhat
3	Quite a lot
4	A lot
5	Extremely lot



TVEpisode

[Thing](#) > [CreativeWork](#) > [Episode](#) > [TVEpisode](#)

A TV episode which can be part of a series or season.

Usage: Between 1000 and 10,000 domains

Property	Expected Type	Description
Properties from TVEpisode		
countryOfOrigin	Country	The country of origin of the episode.
subtitleLanguage	Language or Text	The language of the subtitle.
Properties from Episode		
actor	Person	The performer in the episode.
director	Person	The person who directed the episode.
episodeNumber	Integer or Text	The number of the episode in the series.
musicBy	MusicGroup or Person	The composer of the soundtrack.
partOfSeason	CreativeWorkSeason	The season to which this episode belongs.
partOfSeries	CreativeWorkSeries	The series to which this episode or season belongs.
productionCompany	Organization	The production company or studio responsible for the episode.
trailer	VideoObject	The trailer of a movie or tv/radio series, season or episode.
Properties from CreativeWork		

Yle schema (BETA)
version: 0.9 BETA

Home
Enter keyword
Metadata Basics
DCMI Specifications

DCMI Metadata Terms

Properties in the /terms/ namespace	abstract , accessRights , accrualMethod , accrualPeriodicity , accrualPolicy , alternative , audience , dateAccepted , dateCopyrighted , dateSubmitted , description , educationLevel , extent , format , hasFormat , isReferencedBy , isReplacedBy , isRequiredBy , issued , isVersionOf , language , license , mediator , rightsHolder , source , spatial , subject , tableOfContents , temporal , title , type , valid
Properties in the /elements/1.1/ namespace	contributor , coverage , creator , date , description , format , identifier , language , publisher , relation
Vocabulary Encoding Schemes	DCMIType , DDC , IMT , LCC , LCSH , MESH , NLM , TGN , UDC
Syntax Encoding Schemes	Box , ISO3166 , ISO639-2 , ISO639-3 , Period , Point , RFC1766 , RFC3066 , RFC4646 , RFC5646 , URI , W3CDTF
Classes	Agent , AgentClass , BibliographicResource , FileFormat , Frequency , Jurisdiction , LicenseDocument , LinguisticSystem , Location , LocationPeriodOrJurisdiction , MediaType , MediaTimeOrExtent , MethodOfAccrual , MethodOfInstruction , PeriodOfTime , PhysicalMedium , PhysicalResource , Policy , ProvenanceStatement , RightsStatement , SizeOrDuration , Standard
DCMI Type Vocabulary	Collection , Dataset , Event , Image , InteractiveResource , MovingImage , PhysicalObject , Service , Software , Sound , StillImage , Text
Terms related to the DCMI Abstract Model	memberOf , VocabularyEncodingScheme

The composer of the soundtrack.

The season to which this episode belongs.

The series to which this episode or season belongs.

The production company or studio responsible for the episode.

The trailer of a movie or tv/radio series, season or episode.

The Yle schema is also available as a machine-readable [schema.json](#).

To validate data against the JSON schema, use for example [this website](#).



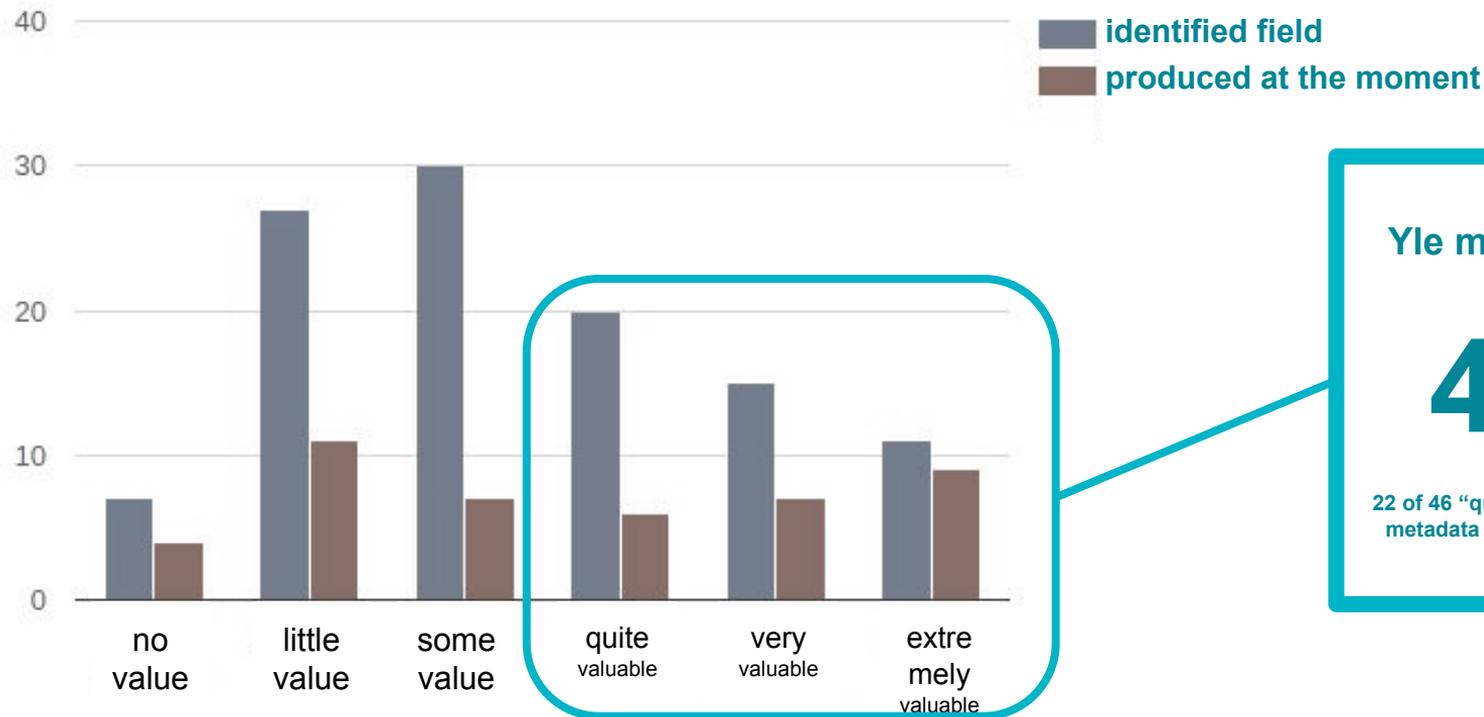
The list of metadata (examples)

Value for customer (weight=2) Value for service (weight=1) Value for society (weight=0.2) Created currently

#	Group	Field	Most value creating use-case	Value for customer (weight=2)	Value for service (weight=1)	Value for society (weight=0.2)	Created currently
1	title	(main) title	what is this content?	5	5	5	1
3	relation	partOf (series, season, ...)	show all episodes part of this series	5	5	3	1
5	description	cover image	a large, emotional marketing image	5	5	0	1
7	relation	next	recommended next	5	5	0	0
13	publisher	publisher (=Yle)	trustfulness in 3rd party channels	4	5	3	0
24	coverage	geographical area	Emergency message for a specific area.	4	4	0	0
26	priority	importance inside area	Sport news in Lapland.	3	5	4	0
34	priority	image information value	how big should the image be shown?	3	5	0	0
46	identifier	hashtag	social media interlinking	3	2	1	0
51	priority	funniness	personalized automatic playlist	2	4	0	0
52	priority	sadness	personalized automatic playlist	2	4	0	0
64	identifier	external identifiers	IMDB ID	2	2	2	0
101	language	video language	sign language, silent movies	1	1	0	0
110	identifier	program guide link		1	0	0	1



Identified metadata fields vs. currently produced



Yle metadata fitness:

48 %

22 of 46 "quite/very/extremely valuable" metadata is produced at the moment.



**LIST OF
METADATA FIELDS**

prioritized by
customer value

Making the list is not the real problem.

Being able to respond to changing business needs (=the metadata list) quickly is the problem.

Team

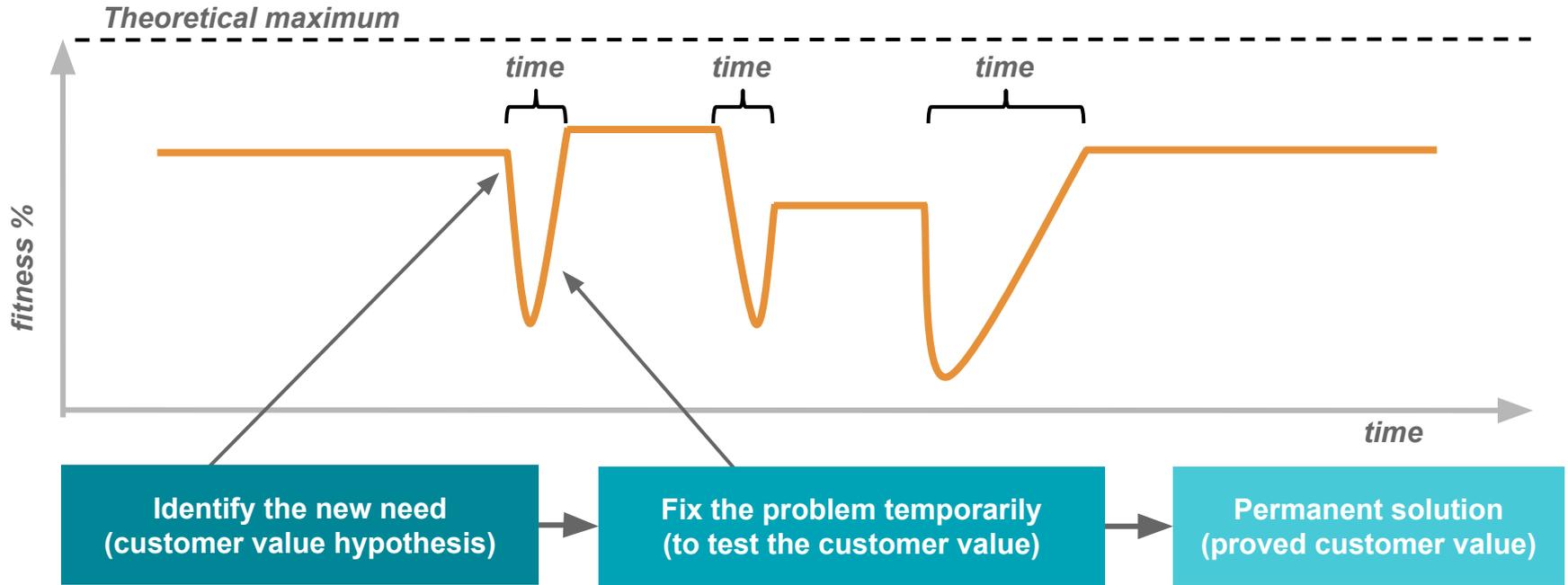
Process

Agile metadata

**Metadata
need**



Metadata need = data debt that is solved by work

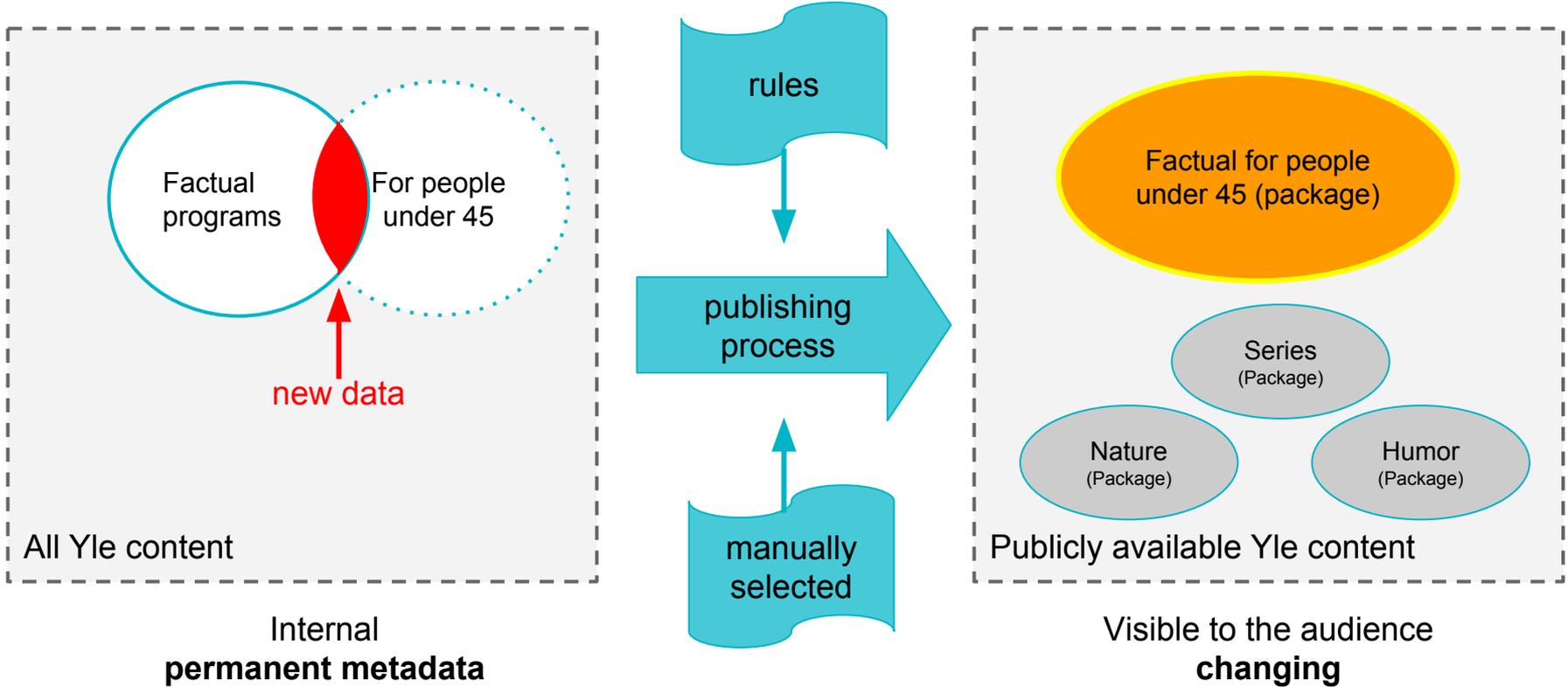


Example: Factual programs for people under 45

- **Need:** Create a package of factual programs for under 45 year people
- **Problem:** We already know which programs are factual, but do not have the information on which of these have the intended audience of under 45 year people.
- **Solution: agile metadata addition**
 - The agile metadata team adds a new value to the agile metadata system: "intended audience < 45"
 - The team goes through all currently published factual programs and add the missing data (e.g. 1000 programs ~ 1-2 days)
 - The package is created and published in Yle Areena
 - The audience response is measured (is there a demand for such package?)
- **Later, if the demand is high enough:** make the permanent changes to metadata production (e.g. change source systems? automation?)

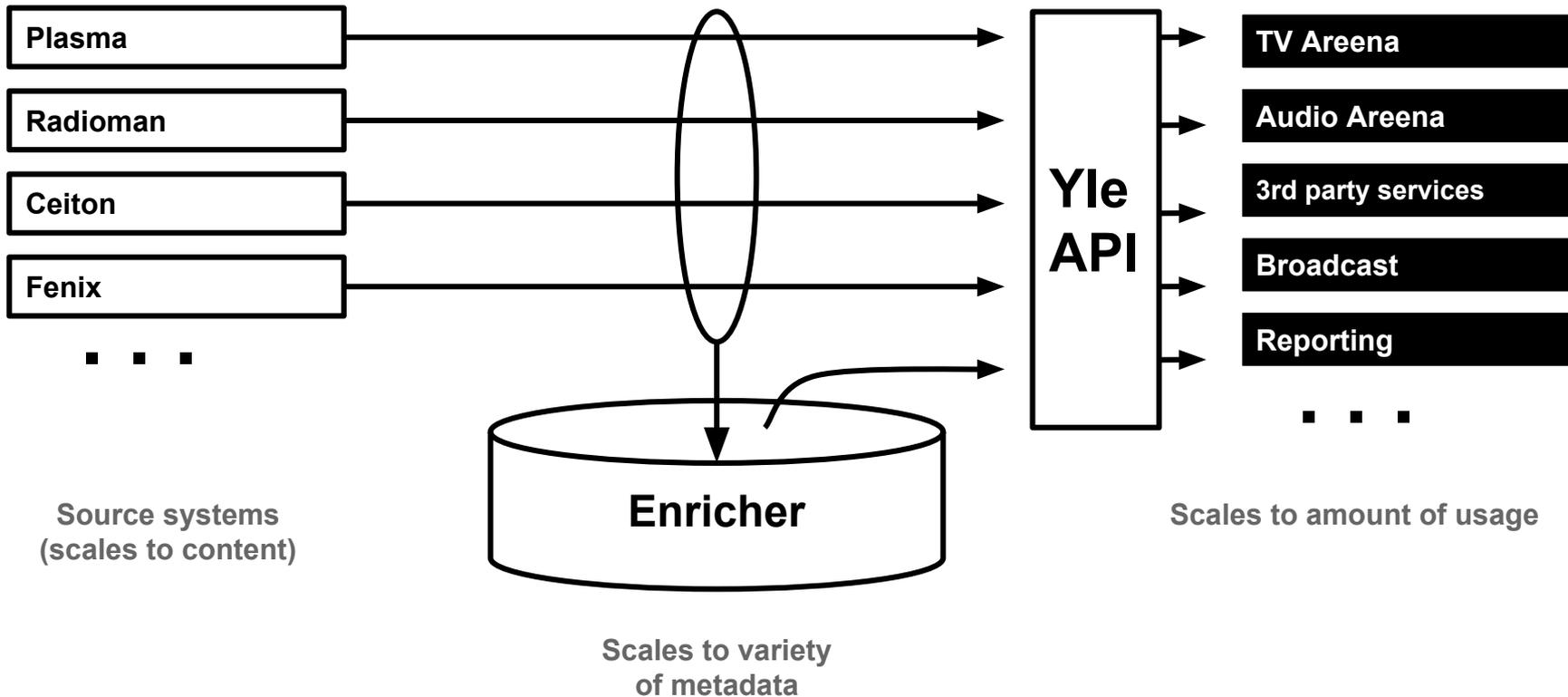


Factual programs for people under 45





Agile metadata enricher tool





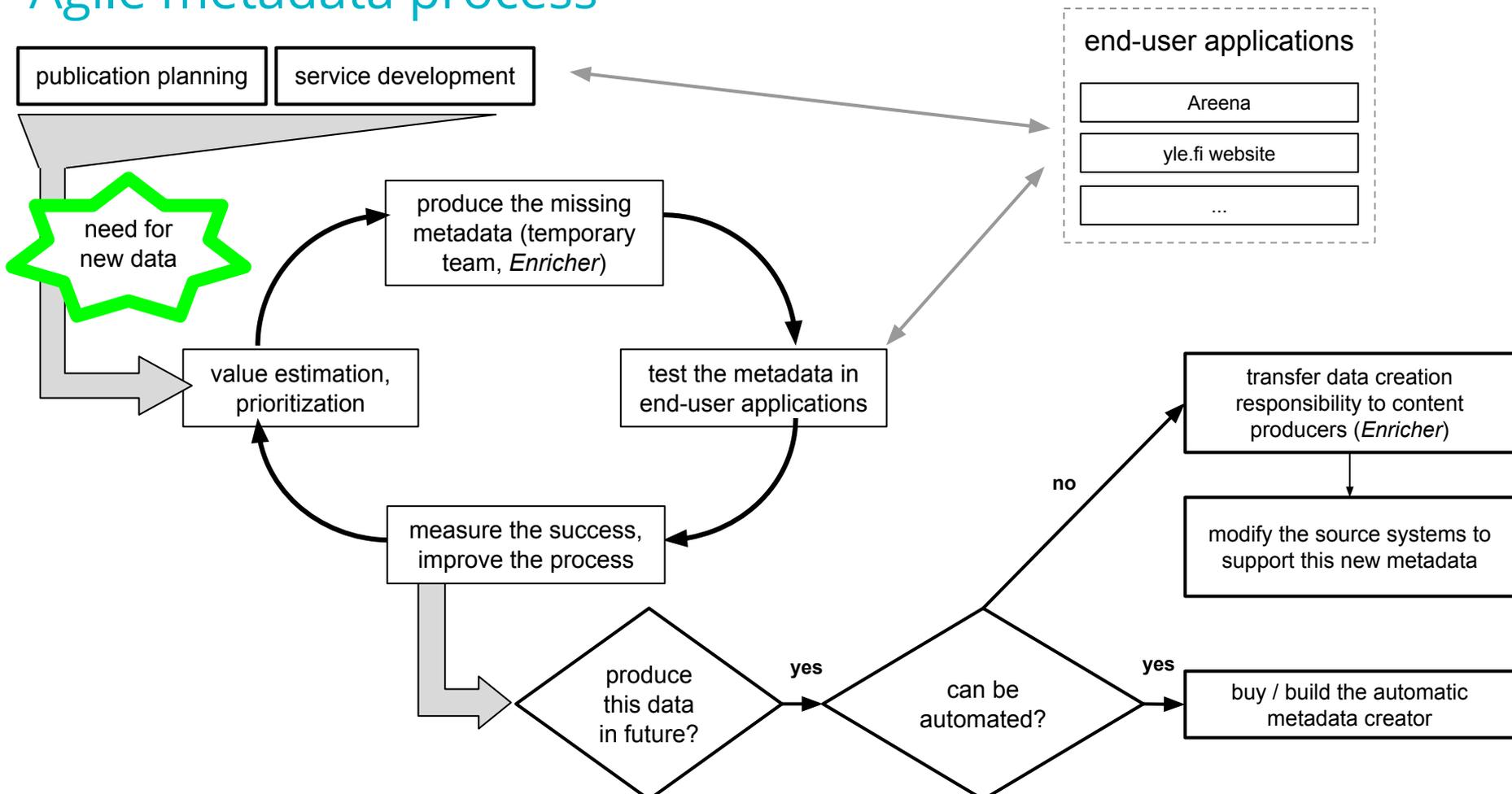
Agile metadata enricher tool

“factual programs” + currently available ondemand + sort by playstarts

1 023 hits

Playstart	Title	Metadata field	Value
94 200	Satuhäät	Age of audience	<Under 45 year>
49 200	Soramonttuprinsessat	Age of audience	<Under 45 year>
31 200	Inhimillinen tekijä		
25 400	Kioski	Age of audience	<Under 45 year>
14 900	Arto Nyberg		
	...		

Agile metadata process



A yellow scroll graphic with a black outline, featuring a rolled-up top edge and a rolled-up bottom edge. The scroll is centered on a dark blue background with a horizontal light blue lens flare and scattered white and blue stars.

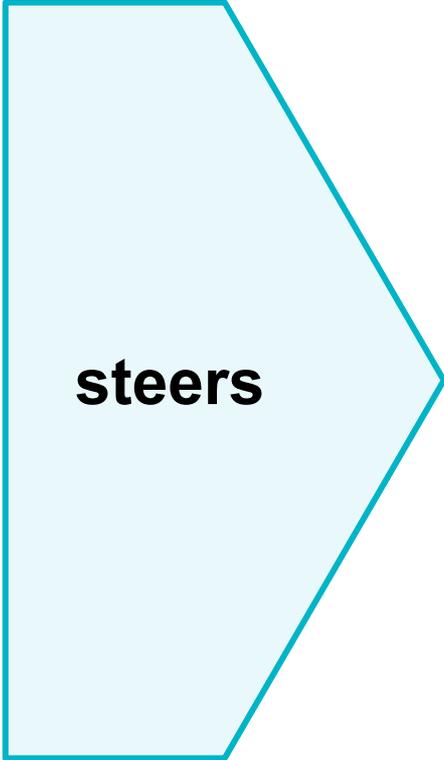
**VALIDATED
LIST OF
METADATA FIELDS**

prioritized by
validated
customer value

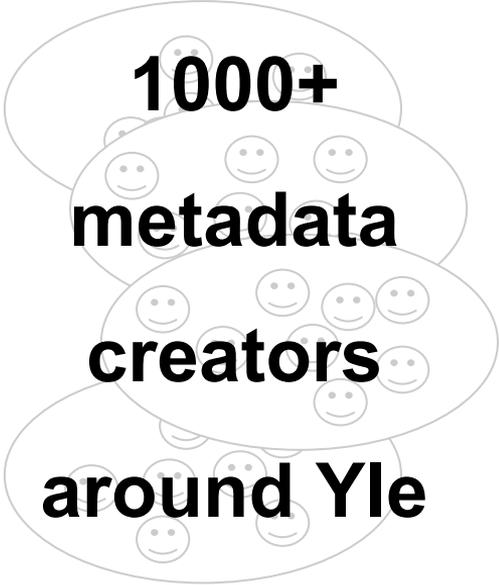
Steering the distributed metadata creation



**LIST OF
METADATA FIELDS**
prioritized by
customer value



steers



1000+
**metadata
creators**
around Yle

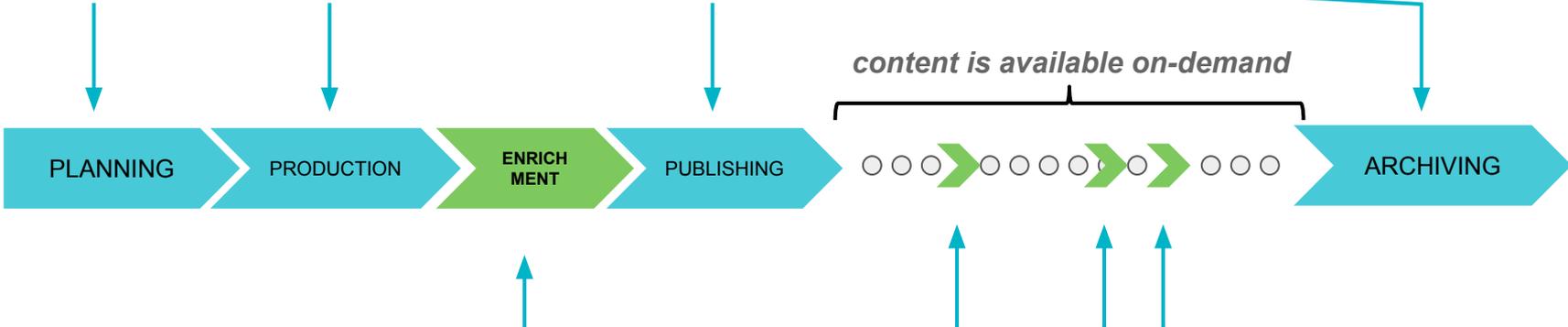
AND

- automated metadata creation
- using external data sources
- external data creation
- IT system development



Metadata creation for a single program/content

Permanent organization, processes and systems.



Quick fixes: Business need changes after publication that require new metadata (temporary team, temporary tool)

Metadata which is not yet part of the permanent tools and processes.

Metadata agile team



Metadata quick fixes

Co-ordinating

Meta strategy

Process

Product owner

**“Automation and manual work
are our strenghts.**

The customer is our guiding star.”

reporter, informatician

Prioritizing

Reporting

Communication

Technology

metadata scientist, developer



Metadata control center

Yle's metadata in 2020 —

How to answer the unknown needs of the future?



Current
Yle



**VALIDATED
LIST OF
METADATA FIELDS**
prioritized by
validated
customer value



Future
Yle



Agile metadata

- Answers to the future needs are created on the way - first things first
- Steering the distributed metadata development and data creation in an agile way - faster response times to customer and business needs
- Validate customer need / business case before permanent implementation
- Enables cheaper experimenting
- All metadata is not consistent - e.g. some programs have the information "intended audience: < 45" ... Has the metadata ever been consistent?

- **Next steps at Yle:** testing the agile metadata model in practice in Autumn 2016



Summary

- external **challenges**
- cool **examples**
- annoying **problems**
- what we **need**
- the **solution**

What do you think?

Yle's metadata in 2020 —

How to answer the unknown needs of the future?



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