

CoSyne

Multilingual Content Synchronization with Wikis

A. Bronner
University of Amsterdam
Netherlands Institute for Sound & Vision

Wikimania 2011, Haifa Israel

Introduction



- CoSyne: Multilingual Content Synchronization with Wikis
- Research & Development Project, Co-Funded by the European Union under the 7th Framework Programme (FP7- ICT)
- March 2010 February 2013



Consortium



4 Research Institutions



University of Amsterdam (UvA)



Fondazione Bruno Kessler (FBK)



Dublin City University (DCU)





Heidelberg Institute for Theoretical Studies (HITS)

3 End User Partners

DEUTSCHE WELLE Deutsche Welle



Netherlands Institute for Sound & Vision



Wikimedia Netherlands

Objective



The CoSyne project will develop a system for synchronizing wiki pages in multiple languages and for

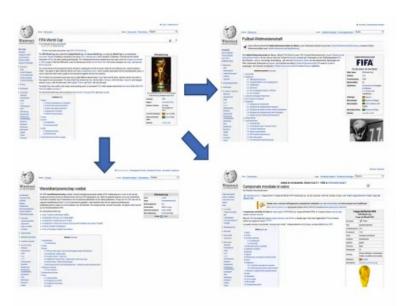
maintaining consistency while pages are edited in the different languages.



Motivation



- Why do we want to synchronize wiki pages?
 - Keep the content consistent across languages
 - Learn about content in other languages
 - Expand to new languages





- 28 May 2011, 19:45
- Wembley stadium, London
- Barcelona vs. Manchester United
- Goalkeeper Edwin van der Sar, at the age of 40, plays his last game for Manchester United and retires from football







- 28 May 2011, 20:35 (already at the half-time ???)
- English user edit: http://en.wikipedia.org/wiki/Edwin_van_der_Sar
- "Van der Sar officially retired from football following a 3-1 defeat ..."

Revision as of 18:56, 28 May 2011 (edit)

Ntadams (talk I contribs)

← Previous edit

and [[Fabio Pereira da SilvalFabio]]. He was included in the [[PFA Team of the Year]], making his third appearance there, others in 2007 and 2008.

On 22 May 2011, He played his final game at Old Trafford in a 4–2 victory over [[Blackpool F.C.IBlackpool]] resulting in Blackpool's relegation from the Premier League. He captained United as a farewell treat. Previous to the last game of the Premier League season he had announced that after the [[2011 UEFA Champions League Final]] against [[FC BarcelonalBarcelona]] he will retire.

Revision as of 20:35, 28 May 2011 (edit) (undo)

ShadowTerror10 (talk I contribs)

Next edit →

and [[Fabio Pereira da SilvalFabio]]. He was included in the [[PFA Team of the Year]], making his third appearance there, others in 2007 and 2008.

On 22 May 2011, he played his final game at Old Trafford in a 4–2 victory over [[Blackpool F.C.IBlackpool]] resulting in Blackpool's relegation from the Premier League. He captained United as a farewell treat. Previous to the last game of the Premier League season he had announced that after the [[2011 UEFA Champions League Final]] against [[FC BarcelonalBarcelona]] he would retire.

Van der Sar officially retired from football following a 3-1 defeat to Barcelona in the 2011 UEFA Champions League Final.

A. Bronneternational career==



- 28 May 2011, 22:47
- Italian user edit: http://it.wikipedia.org/wiki/Edwin_van_der_Sar
- "He will play played his last game ... "

Versione delle 22:39, 28 mag 2011 (modifica) 79.42.63.220 (Discussione)

← Differenza precedente

==== Stagione 2010-2011 =====

II [[23 dicembre]] [[2010]] annuncia che a fine stagione si ritirerà. II [[22 maggio]] seguente ha raggiunto le 605 partite di campionato disputate in vent'anni: 226 con l'Ajax, 66 con la Juventus, 127 con il Fulham e 186 con il Manchester<ref>{{Cita newslautore =Massimo Perroneltitolo =Huntelaar a quota 201|pubblicazione = [[La Gazzetta dello SportlExtra Time]]Igiorno = 24Imese = 04Ianno = 2011|pagina = 6}}-/ref>. Disputa La sua ultima partita il [[28 maggio]] nella finalissima di [[Champions League]] allo [[Wembley Stadium (2007)|Stadio Wembley]] contro il [[F.C. BarcellonalBarcellona]].

=== Nazionale ===

Versione delle 22:47, 28 mag 2011 (modifica) (annulla)

151.24.72.126 (Discussione)
Differenza successiva →

==== Stagione 2010-2011 =====

II [[23 dicembre]] [[2010]] annuncia che a fine stagione si ritirerà. II [[22 maggio]] seguente ha raggiunto le 605 partite di campionato disputate in vent'anni: 226 con l'Ajax, 66 con la Juventus, 127 con il Fulham e 186 con il Manchester<ref>{(Cita newslautore =Massimo Perroneltitolo =Huntelaar a quota 201|pubblicazione =

+ [[La Gazzetta dello SportlExtra Time]]lgiorno = 24lmese = 04lanno = 2011|pagina = 6}}-/ref>. Ha disputato la sua ultima partita il [[28 maggio]] nella finalissima di [[Champions League]] allo [[Wembley Stadium (2007)|Stadio Wembley]] contro il [[F.C. Barcellona|Barcellona]], lasciando il calcio giocato con l'amaro in bocca di una finale perduta e tre goi subiti.

=== Nazionale ===



- 28 May 2011, 23:10
- German user edit: http://de.wikipedia.org/wiki/Edwin_van_der_Sar
- "On May 28 2011 he was defeated in his last professional game ..."

[gesichtete Version]

Version vom 28. Mai 2011, 22:54 Uhr (Bearbeiten)

Nicowa (Diskussion I Beiträge)

← Zum vorherigen Versionsunterschied

Berbatov strike as United pull away from the pack (4. März 2009)]</re>/ref> Er kündigte an, seine Karriere am Ende der [[Premier League 2010/11|Saison 2010/11]] bei Manchester United zu beenden.</ri>
[http://www.guardian.co.uk/football/2011/jan/31/edwin-van-der-sar-united Edwin van der Sar motivated to end Manchester United career on a high (31. Jan. 2011)]

[ungesichtete Version]

Version vom 28. Mai 2011, 23:10 Uhr (Bearbeiten) (entfernen)

Jan.ruesch (Diskussion I Beiträge)

(→Manchester United)

Zum nächsten Versionsunterschied →

Berbatov strike as United pull away from the pack (4. März 2009)]</ref> Er kündigte an, seine Karriere am Ende der [[Premier League 2010/11|Saison 2010/11]] bei Manchester United zu beenden.</re>
[http://www.guardian.co.uk/football/2011/jan/31/edwin-van-der-sar-united Edwin van der Sar motivated to end Manchester United career on a high (31. Jan. 2011)]

Am 28.05.2011 unterlag er in seinem letzten profispiel im [[Champions League]]Finale gegen den[[FC -Barcelona]] mit 3:1.

== Nationalmannschaft ==

== Nationalmannschaft ==

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- 29 May 2011, 13:33
- Dutch user edit: http://nl.wikipedia.org/wiki/Edwin_van_der_Sar
- "Van der Sar played his last game as goalkeeper ..."

Versie van 29 mei 2011 om 13:26 (bewerken) Letterman (Overleg I bijdragen) Versie van 29 mei 2011 om 13:33 (bewerken) (ongedaan maken) Letterman (Overleg I bijdragen)

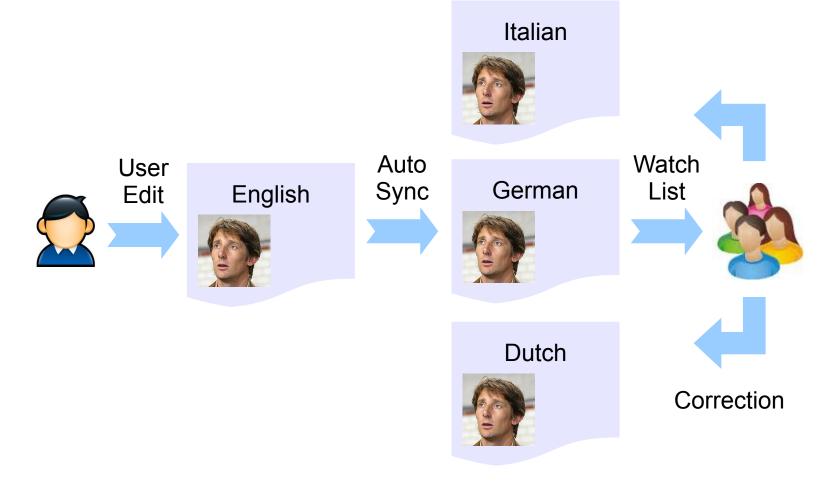
Van der Sar speelde zijn laatste wedstrijd als profkeeper op 28 mei 2011 in [[Londen]], in het [[Wembley]]stadion, waar Manchester United die zaterdagavond de finale om de [[UEFA Champions League]] tegen [[FC Barcelona]] + verloor met 1-3. De toen ruim 40-jarige Van der Sar werd daarmee tevens de oudste voetballer uit de geschiedenis die de eindstrijd haalde om het clubkampioenschap van [[Europa]].

== Loopbaan ==

== Loopbaan ==

Keep Content Consistent (made-up example)





Content from Another Language (made-up example)



Coordinates: 52°22′23″N 4°53′32″



Main page Contents Featured content Current events Random article Donate to Wikipedia

 Interaction About Wikipedia Community portal Recent changes Contact Wikipedia

▶ Toolbox

Print/export

 Languages Acèh Afrikaans

> Ænglisc

العربية

Aragonés

Armäneashce Arpetan

Asturianu

Article Discussion

Read Edit View history

Search

Amsterdam

From Wikipedia, the free encyclopedia

This article is about the Dutch capital. For other uses, see Amsterdam (disambiguation).

Amsterdam (/æmsterdæm/; Dutch [amster'dam] (=() listen)) is the largest city and the capital of the Netherlands. The current position of Amsterdam as capital city of the Kingdom of the Netherlands is governed by the constitution of 24 August 1815 and its successors. [8] Amsterdam has a population of 780,152 within city limits, an urban population of 1,209,419 and a metropolitan population of 2,158,592. [1] The city is in the province of North Holland in the west of the country. It comprises the northern part of the Randstad, one of the larger

Nähuati

Dorerin Nagero

origin: a dam in the river Amstel. Settled as a small fishing village in the orts in the world during the Dutch Golden Age, a result of its innovative enter for finance and diamonds.[10] In the 19th and 20th centuries, the city ned. The 17th-century canals of Amsterdam (in Dutch: 'Grachtengordel'),

Nederlands → Synchronize

nave their headquarters there, and 7 of the am was ranked 13th globally on quality of inknow in the Innovation Cities Index 2009.[14]

Nedersaksisch

नेपाली

नेपाल भाषा

world, is located in the city centre. Amsterdam's main attractions, eum, Stedelijk Museum, Hermitage Amsterdam, Anne Frank House, offee shops draw more than 3.66 million international visitors annually.

not be closing their doors to tourists any time soon. A controversial works; this pass would restrict coffee shop cannabis sales to residents of inpopular and proponents face stiff opposition from figures such as

Amsterdam's mayor, Eberhard van der Laan, and the Maastricht city council. Others have argued that the plan may indeed violate not only the constitution of the Netherlands but also that of the European Union. It is thus expected that the measure will fail before it is more closely considered. As of July 2011, it is safe to say that no "wietpas" will be implemented until 2015 - at the earliest. [15]

Contents [hide]

1 History



Amsterdam

- Municipality/city -



From left to right and top to bottom: Rijksmuseur Amsterdam, Statue in the Vondelpark, Keizersgracht, Zuiderkerk, Royal Palace (Amsterdam), ING House

Overlapping Details (Same Info)





Amsterdam is the largest city and the capital of the Netherlands.

(download/info/permalink)

De naam van de stad is afgeleid van de ligging bij een in de 13e eeuw aangelegde dam in de Amstel. De plaats kreeg stadsrechten rond het jaar 1300 en groeide later uit tot één van de grootste handelssteden ter wereld in de Gouden Eeu Bevolkingsgroei leidde vanaf het eind van de 16e eeuw tot grote stadsuitbreidingen, waaronder de grachtengordel, die op de Werelderfgoedlijst is opgenomen en tot de belangrijkste bezienswaardigheden van de stad behoort. Andere attracties in de ho onder meer de musea, zoals het Rijksmuseum, het Stedelijk Museum en het Van Gogh Museum; het Anne Frank Huis; het pr



Article Discussion

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Its name is derived from Amstelredamme, [9] indicative of the city's origin: a dam in the river Amstel. Settled as a small fishing village in the late 12th century, Amsterdam became one of the most important ports in the world during the Dutch Golden Age, a result of its innovative developments in trade. During that time, the city was the leading center for finance and diamonds.[10] In the 19th and 20th centuries, the city expanded, and many new neighbourhoods and suburbs were formed. The 17th-century canals of Amsterdam (in Dutch: 'Grachtengordel'), located in the heart of Amsterdam, were added to the UNESCO World Heritage List in July 2010.



Interaction Help About Wikipedia Community portal Recent changes

Donate to Wikipedia

Main page

Contents

Featured content

Current events

Random article

More Specific in Dutch





Amsterdam is the largest city and the capital of the Netherlands.



De naam van de stad is afgeleid van de ligging bij een in de 13e eeuw aangelegde dam in de Amstel. De plaats

The city is in the province of North Holland on the rivers Amstel and IJ.



Article Discussion

Read Edit View history



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Interaction Help About Wikipedia Community portal Recent changes

Donate to Wikipedia

Main page

Contents

Featured content

Current events

Random article

Appears only in Dutch





Amsterdam

Amsterdam is the largest city and the capital of the Netherlands.



De naam van de stad is afgeleid van de ligging bij een in de 13e eeuw aangelegde dam in de Amstel. De plaats





Article Discussion

Read Edit View history



Am: From W The city is also called 'Mokum' (מקום) in the local dialect.

This article is about the Dutch capital. For other uses, see Amsterdam (disambiguation).

Amsterdam (/æmsterdæm/; Dutch [amsterdam] (amsterdam) is the largest city and the capital of the Netherlands. The current position of Amsterdam as capital city of the Kingdom of the Netherlands is governed by the constitution of 24 August 1815 and its successors. [6] Amsterdam has a population of 780,152 within city limits, an urban population of 1,209,419 and a metropolitan population of 2,158,592. [7] The city is in the province of North Holland in the west of the country. It comprises the northern part of the Randstad, one of the larger conurbations in Europe, with a population of approximately 7 million. [8]

Its name is derived from Amstelredamme, [9] indicative of the city's origin: a dam in the river Amstel. Settled as a small fishing village in the late 12th century, Amsterdam became one of the most important ports in the world during the Dutch Golden Age, a result of its innovative developments in trade. During that time, the city was the leading center for finance and diamonds.[10] In the 19th and 20th centuries, the city expanded, and many new neighbourhoods and suburbs were formed. The 17th-century canals of Amsterdam (in Dutch: 'Grachtengordel'), located in the heart of Amsterdam, were added to the UNESCO World Heritage List in July 2010.





Main page Contents Featured content Current events Random article

Interaction Help About Wikipedia Community portal Recent changes

Donate to Wikipedia

Appears only in English





Amsterdam

Amsterdam is the largest city and the capital of the Netherlands.



De naam van de stad is afgeleid van de ligging bij een in de 13e eeuw aangelegde dam in de Amstel. De plaats



The city is in the province of North Holland on the rivers Amstel and IJ.



Am:

Article Discussion

The city is also called 'Mokum' (מקום) in the local dialect.



- 3

This article is about the Dutch capital. For other uses, see Amsterdam (disambiguation).

Main p Conter

Amsterdam's coffee shops will not be closing their doors to tourists any time soon.

Random article

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Interaction
 Help
 About Wikipedia
 Community portal
 Recent changes

The city is in the province of North Holland in the west of the country. It comprises the northern part of the Randstad, one of the larger conurbations in Europe, with a population of approximately 7 million.^[8]

Its name is derived from *Amstelredamme*, [9] indicative of the city's origin: a dam in the river Amstel. Settled as a small fishing village in the late 12th century, Amsterdam became one of the most important ports in the world during the Dutch Golden Age, a result of its innovative developments in trade. During that time, the city was the leading center for finance and diamonds.^[10] In the 19th and 20th centuries, the city expanded, and many new neighbourhoods and suburbs were formed. The 17th-century canals of Amsterdam (in Dutch: 'Grachtengordel'), located in the heart of Amsterdam, were added to the UNESCO World Heritage List in July 2010.



Contradiction





Amsterdam is the largest city and the capital of the Netherlands.



De naam van de stad is afgeleid van de ligging bij een in de 13e eeuw aangelegde dam in de Amstel. De plaats

The city is in the province of North Holland on the rivers Amstel and IJ.



Read Edit View history



This article is about the Dutch capital. For other uses, see Amsterdam (disambiguation).

Amsterdam's coffee shops will not be closing their doors to tourists any time soon.

Curren

Main p Conter

Feature

Random article Interaction

About Wikipedia Community portal Recent changes

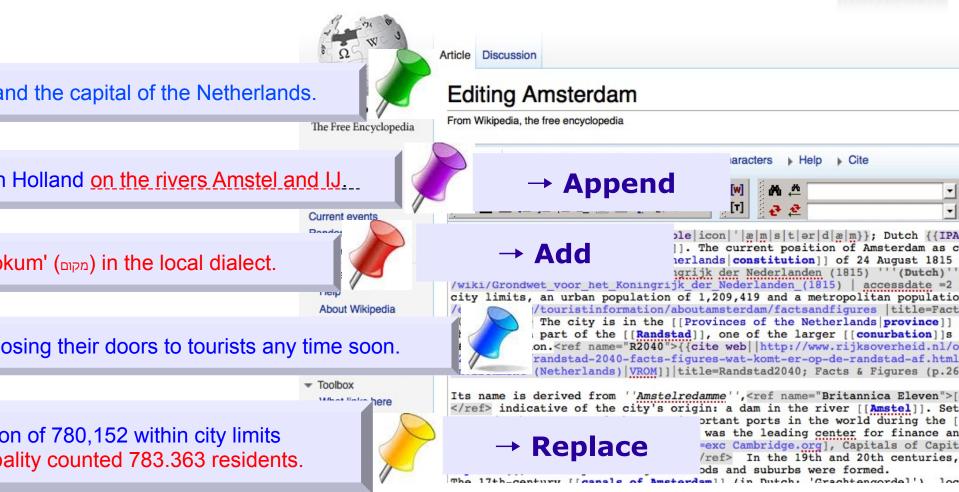
The city is in the province of North Holland in the west of the country. It comprises the northern part of the Randstad, one of the larger conurbations in Europe, with a population of approximately 7 million.[8]



Amsterdam has a population of 780,152 within city limits On April 1st 2011 the municipality counted 783.363 residents.

Take Action? (Not Necessarily...)

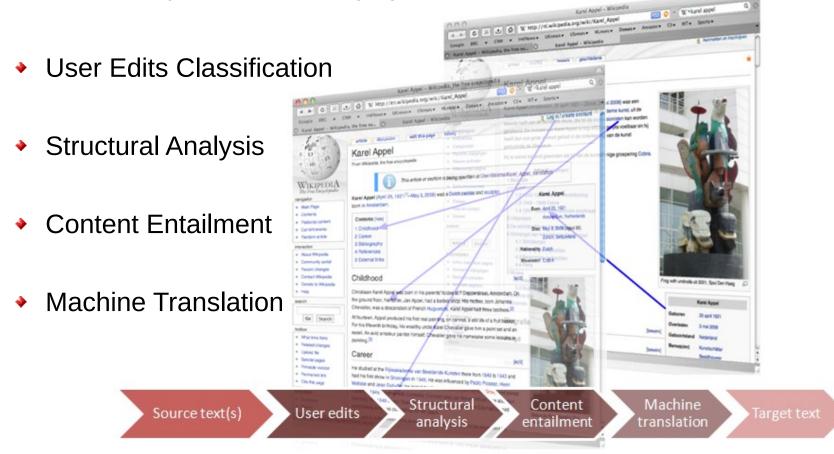




Synchronization Process

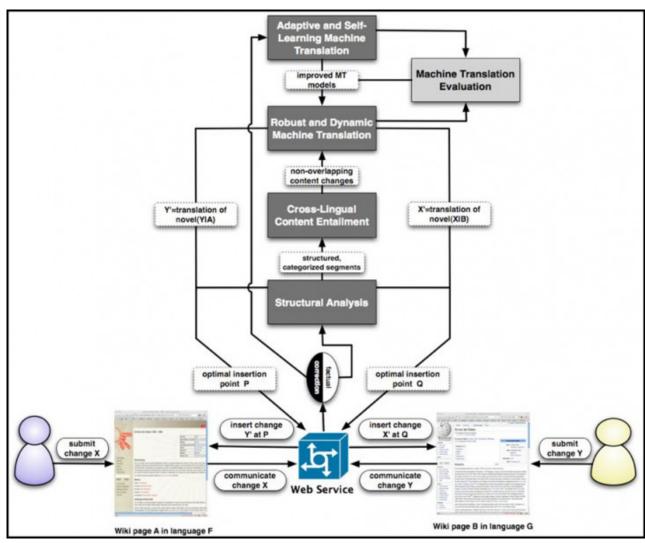


How do we synchronize wiki pages?









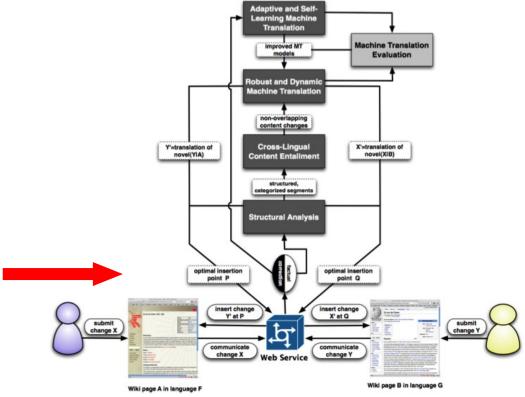
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- Decides whether the meaning has changed:
 - Factual change → Synchronize

Fluency change → Improve (self learning)

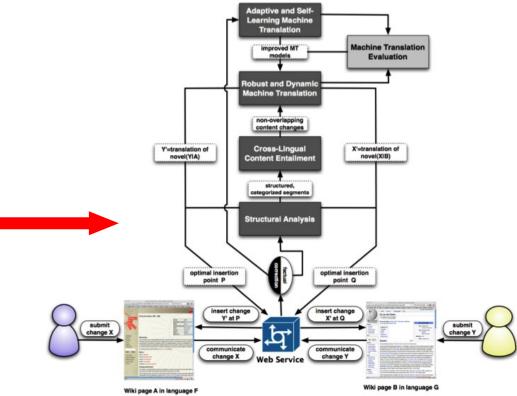




能够充分 ÒCOご ДSYNEガ ΨΦΣΛΠC

- Decides which segments to compare
- Instructs how to reconstruct the wikitext

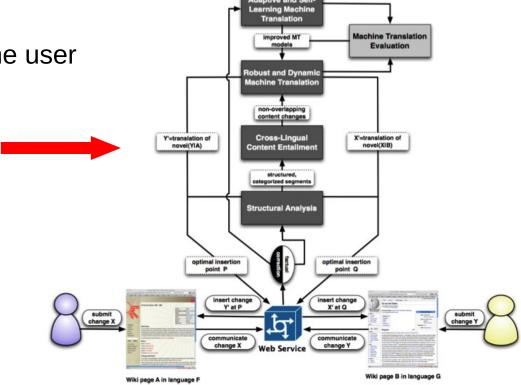
Decides where to insert the modifications







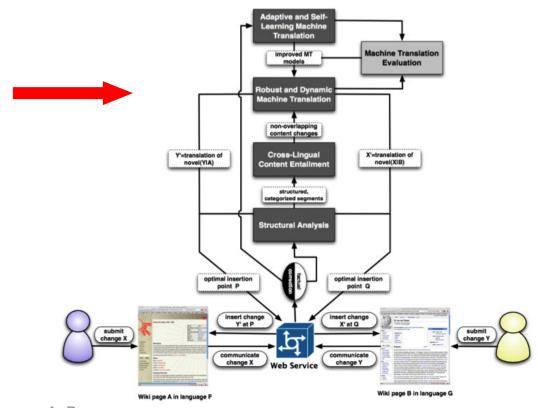
- Determines whether text segments are equivalent
 - ◆ Equivalent → No change
 - More specific → Replace
 - ◆ Unrelated → Add
 - Contradiction → Ask the user



Machine Translation



- Translates segments that need to be added or replaced
- Collects "fluency" corrections and learns improved models



Status of Development



- 3 prototypes planned
 - 1St prototype released
- Deployed on end user's (private) wiki
- Target Languages:
 - English, German, Italian, Dutch (core)
 - Bulgarian, Turkish
- Machine Translation Quality

Use Cases 1 & 2



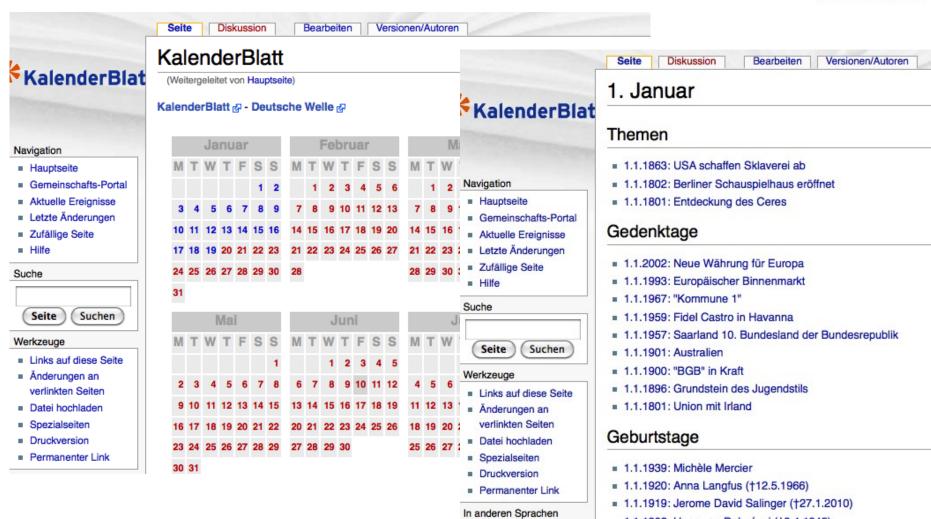
The wiki of the Netherlands Institute for Sound & Visior

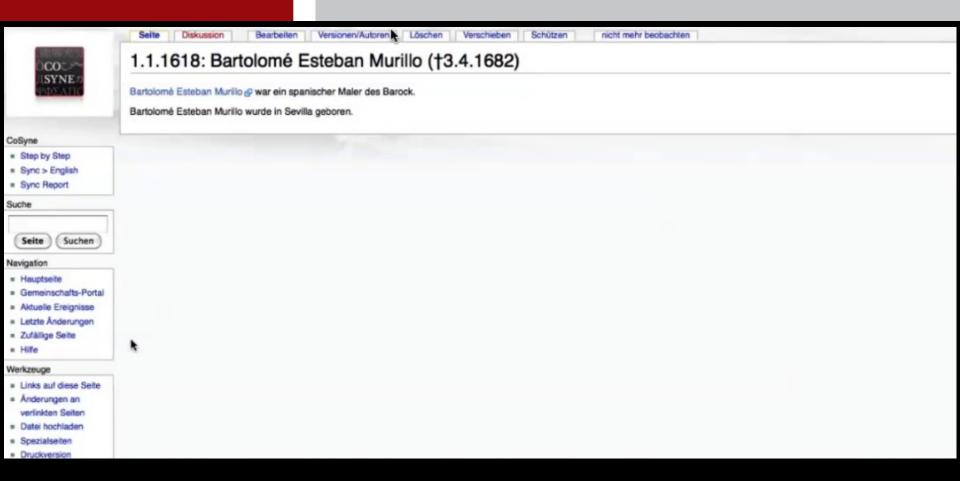


- Deutsche Welle's Kalenderblatt (Today in History)
 - Demo

1st Prototype Demo: Kalenderblatt on MediaWiki







The user (DW) edits German content for Kalenderblatt
There is no English page
New entry: Bartolomé Esteban Murillo, a Spanish painter
Born 1.1.1618, Died 3.4.1682

Welcome to CoSyne

Content Synchronization with Wikis

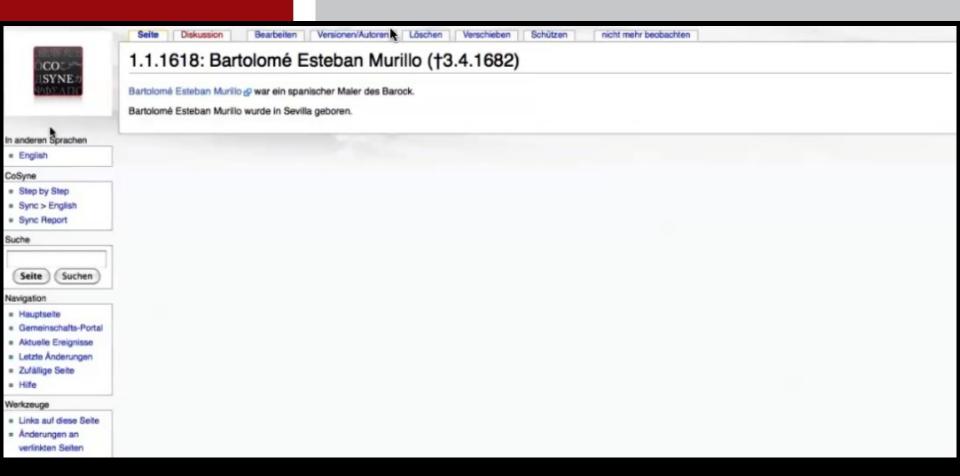


This is a prototype version. It is still under development.

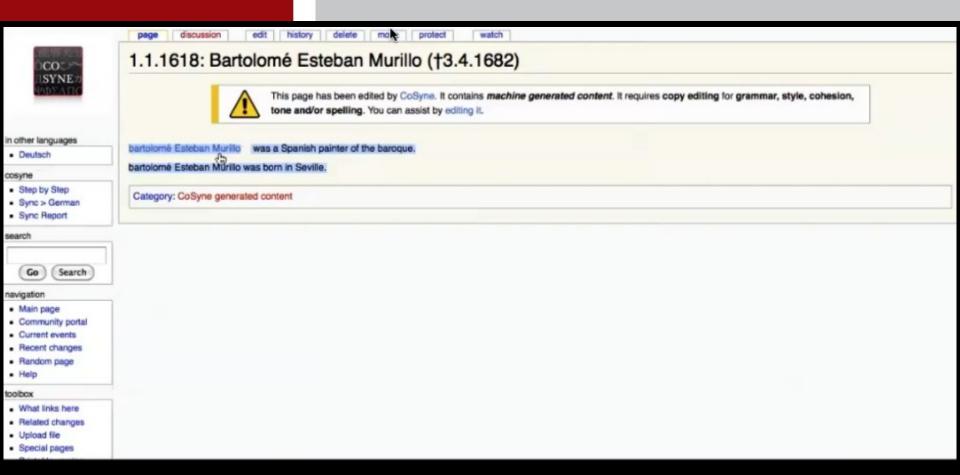
You will be redirected to the modified page in a few seconds.

Executing analysis .. in_process

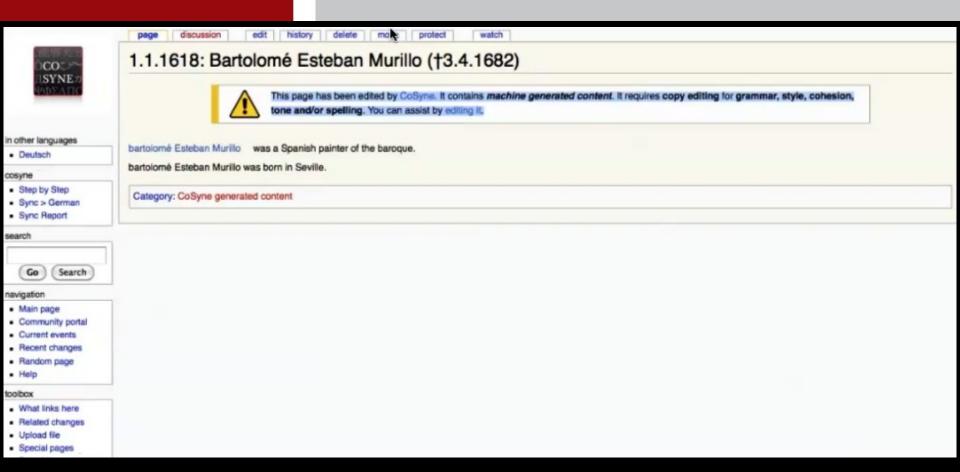
The user triggers CoSyne



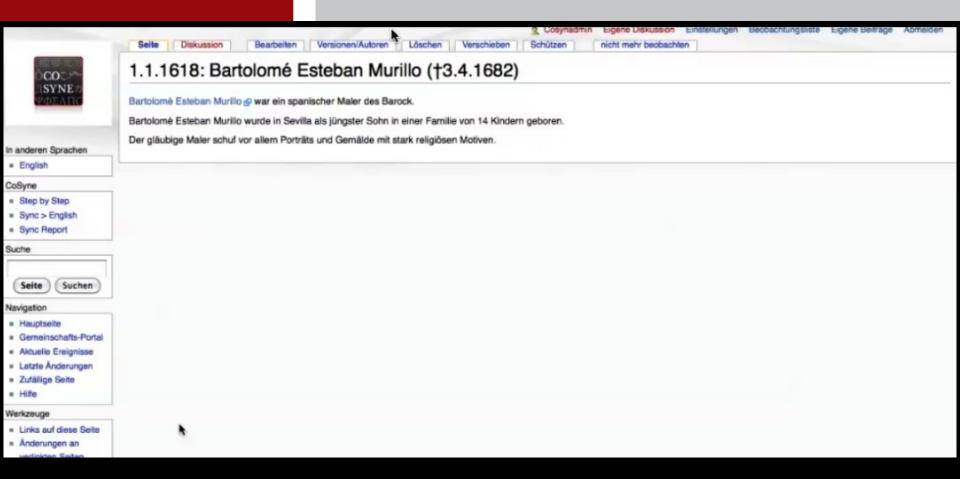
CoSyne creates a new English page and adds language links between the German & English versions



CoSyne provides German translation to English and reconstruction of Wikitext formats (hyperlinks, headings, bold/italic, images, templates, ...)



CoSyne adds a warning message about machine generated content and asks users to review & correct the content



The German version is now linked to an English version
The user provides additional information to the German version
adding a new sentence & changing an existing sentence

Welcome to CoSyne

Content Synchronization with Wikis

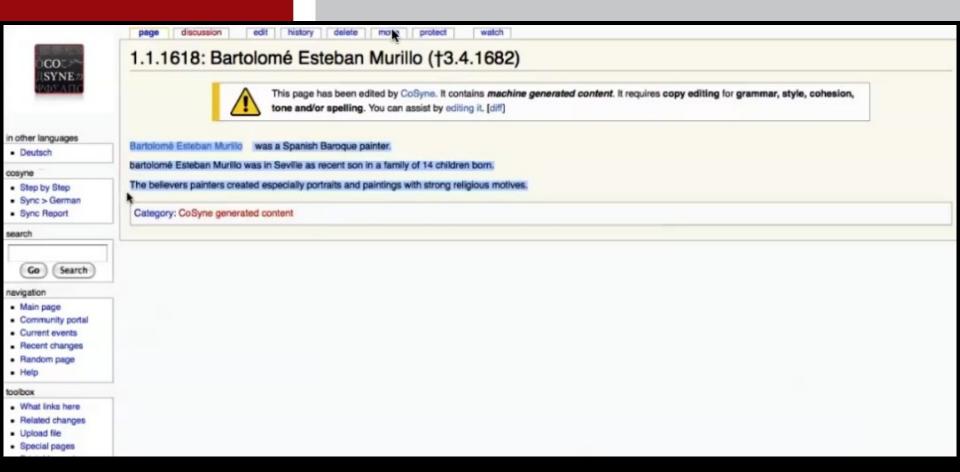


This is a prototype version. It is still under development.

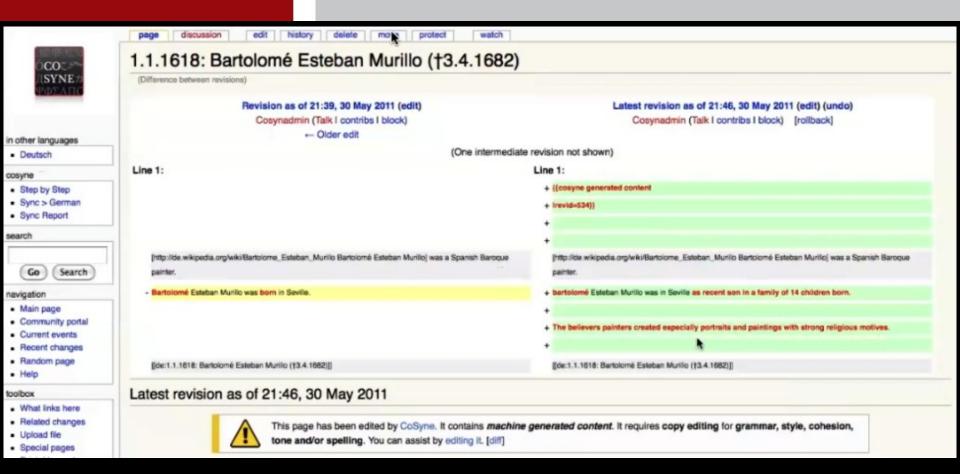
You will be redirected to the modified page in a few seconds.

Executing analysis .. in_process

The user triggers CoSyne



CoSyne creates a new version of the English page



CoSyne does not change the 1st sentence, it replaces the 2nd by a translation of the modified German & it adds a translation of the new German sentence

Use Case 3



Wikimedia Netherlands

WIKIMEDIA NEDERLAND

- Options:
 - MediaWiki manuals
 - Copyright lobby texts (?)
 - Specific domains (technical, soccer, ...)
- Languages:
 - ◆ EN, DE, IT, NL
- Mailing list

Want to Get Involved?



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cosyne.eu