

How language technologies could help cultural heritage

Jānis Ziediņš

09.06.2022. ELAG 2022, Riga, Latvia





Culture information systems centre

The Centre for Culture Information Systems is a direct administration institution under the authority of the Ministry of Culture.

The Centre's mission is to help memory institutions – archives, libraries and museums – preserve and make available cultural heritage for future generations through the latest information technology solutions.



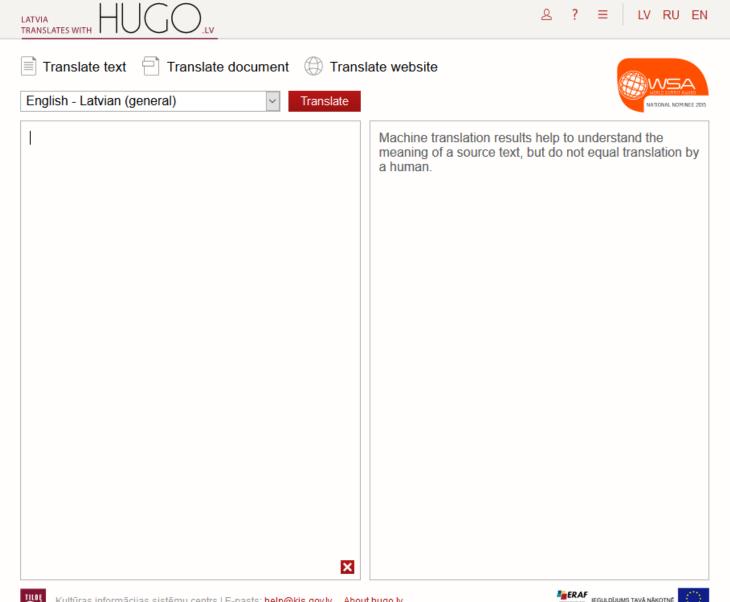
Purpose of Hugo.lv

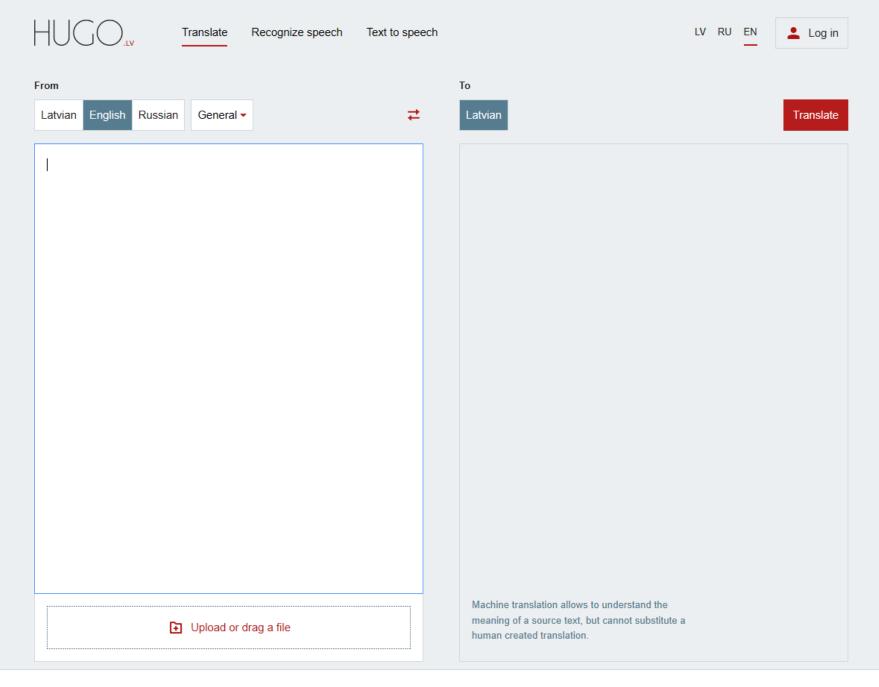
The primary goals of Latvia's machine translation service are to crack language barriers in Information Society, allow multilingual access to knowledge and information originally written in Latvian, and provide widespread access to Latvia's e-services for users in multiple linguistic communities.

To open up widespread multilingual access to knowledge, Latvia in 2014 created its very own public machine translation service, **Hugo.lv**.



Hugo.lv – first version





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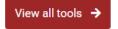






Public administration language tools

<u>Text translation</u>, <u>speech recognition</u> un <u>speech synthesis</u>, as well as <u>various tools</u> to support multilingual e-services.



Latvian English	Russian General -		⇄	Latvian	Translate
I					
ı					
			7	Machine translation allows to understand the	
	Upload or dra	g a file		meaning of a source text, but cannot substitute a human created translation.	



Text translation

Translate texts from Latvian into other languages



◆ Speech synthesis

Listen to a written text or document



Speech recognition

Convert speech to written text



Translation assistant

Translates documents with the CAT translation tool



Latgalian language spelling

Check spelling in Latgalian



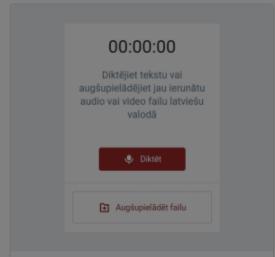
Virtual assistant catalogue

Talk to virtual assistants



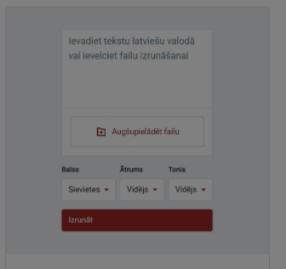
Text translation

The automated machine translation system provides text, document and website translation. Integrated terminology dictionary solution and translated text synthesis capability.



Speech recognition

Speech recognition is possible in two modes - in dictation and audio recording processing mode. Recognized speech is converted into written text.



Speech synthesis

Speech synthesis supports document and input text synthesis and reproduction. The user can choose the text pronunciation speed, voice type and timbre.

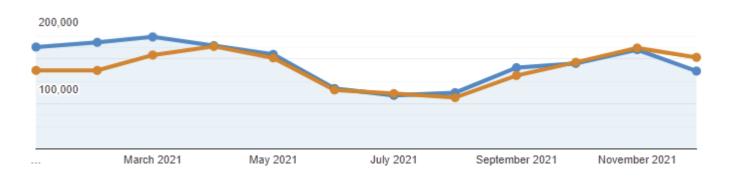


Hugo.lv statistics 2021

19M translation requests433M translated words200M words recognized from audio83M words synthesised

Users +18% (compared to 2020)

Sessions +7% (compared to 2020)









Home / Search in corpus

Search in corpus

K	eyword			Corpus		Language					
	Latvia	*	雨	CultureWebSites.en-lv	•	en •	S	Search			
S	earch results: 3088 <u>Ψ</u> Download					Switch to rows view	Page	1 ~	> Page length	200	~

Forests are one of the main strategic resources of	Latvia	
	Latvia	is one of the six richest countries in the EU by forestland , since the total are
The climate conditions in	Latvia	and the exit to the Baltic Sea favourably impacts development of wood proc
Advantage of Riga and	Latvia	in development of wood processing industry is the availability of suitable tii
essing industry already now is one of the leading sectors of the economy of	Latvia	- it makes up to 27 % of the total manufacturing output .
ectrical engineering industry is the fastest growing manufacturing sector in	Latvia	, whose share in total manufacturing output is about 7 % .
al engineering and metalworking industry is one of the leading industries in	Latvia	
According to the external trade statistics of	Latvia	, the output of the industry is exported to more than 100 countries of the wo
32 % of total population of	Latvia	lives in Riga and it is the highest indicator among the Member States of the
For foreign travellers the capital city of	Latvia	is accessible using air transport and water transport (regular ferry traffic in
Macroeconomic and political stability -	Latvia	is a member state of the European Union and the Eurozone that ensures the

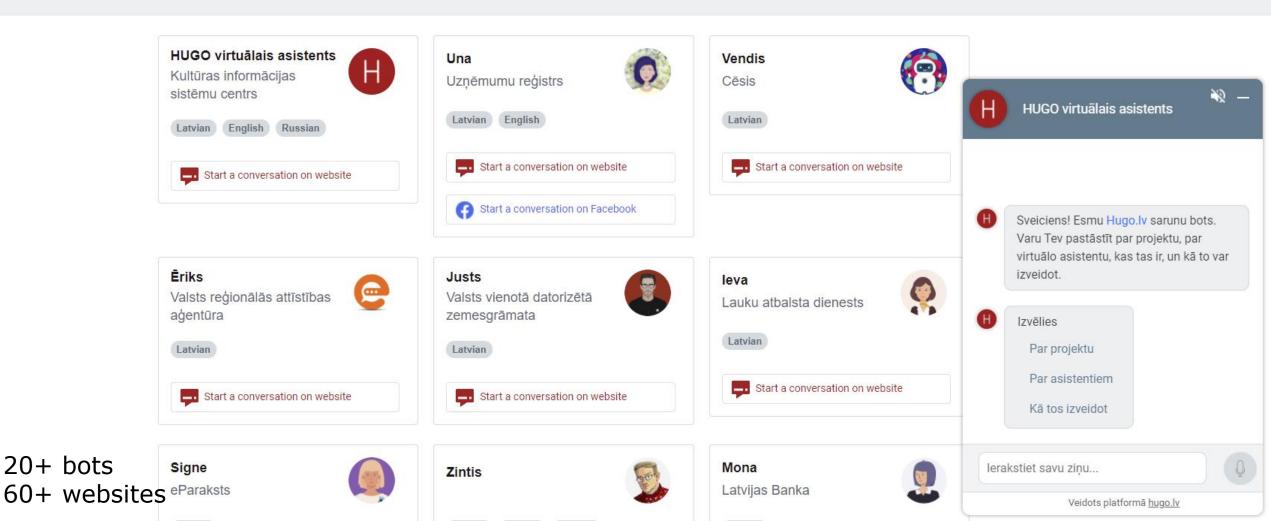




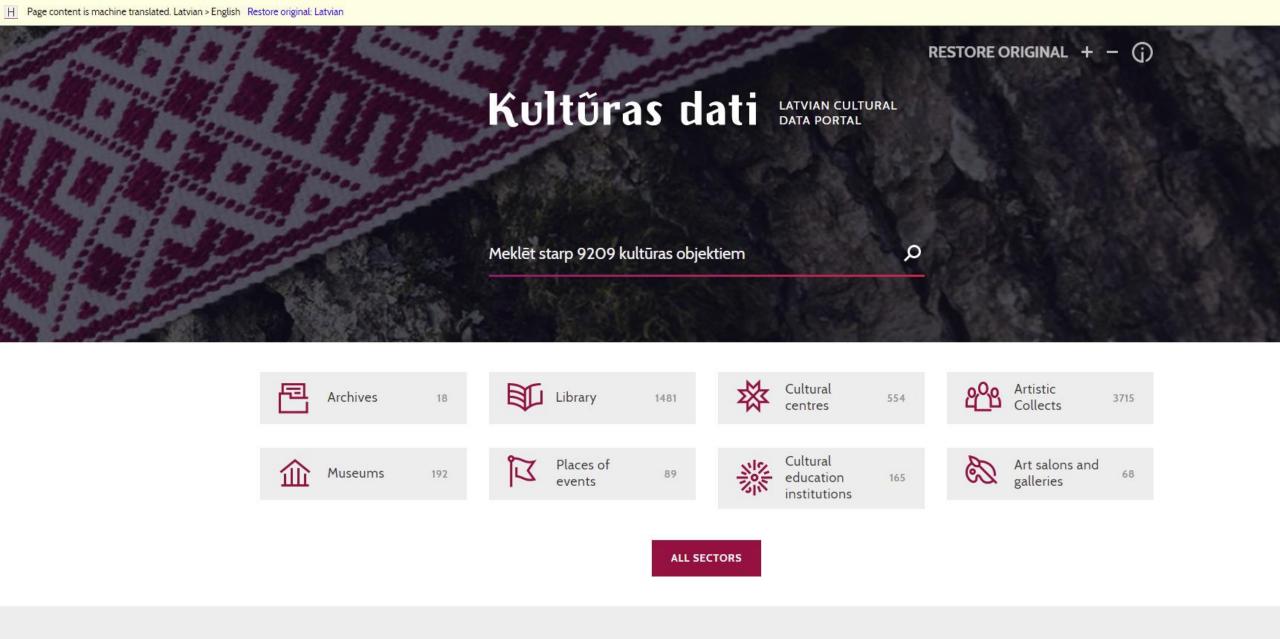
Home / Tools / Virtual assistant catalogue

Virtual assistant catalogue

All virtual assistants developed by public bodies can be viewed in the catalogue. Information about assistants, their communication languages and mastered topics is displayed. It is possible to communicate with the assistants.







Kultūras dati LATVIAN CULTURAL DATA PORTAL

RESTORE ORIGINAL + - (j)

Meklet starp 9209 kultūras objektiem



Valmiera Library

Library > Public library > Municipality

Basic information Opening hours Supply Statistics

Business

Industry/Object Type: Libraries > > Public Library > > Local

Government

ISIL code: LV-BIB-000839

Address: Cesis Street 4, Valmiera, Valmiera Nov., LV-

4201

Operated in 2021: Yes

Contact:

Туре	Phone	Mobile phone	E-mail	Fax
Library	64250830	26667919	@	

Information on websites:

TO COMMUNICATE



Object last restored its information 9 weeks





Restore original: Latvian

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06. June

WORKING TIMES

Today 10-19

Saturday 10-16 Sunday Closed

Library catalog





UPCOMING EVENTS



18:00 Wyoming civil parish library Evening Talks "Should there be a library in the fields?"

New Titles

















SURVEYS

What remote services are you using?

- ☐ Telephone or email counselling of the librarian
- Remote sign-up library
- ☐ Email delivery of copies of articles
- County Research Collection Materials
- E-books in Latvian 3td.lv
- ☐ E-books in foreign languages
- ☐ E-journals in English



Reading challenge Books Bingo has closed

Commitments match the beginning of the year. It suits you to make a commitment to learn, to do something new, to do nothing, to commit to nothing. Child...



Evening Conversations in the Whitehead Parish Library, "Should there be a library in the fields?"

"We are convinced - everything starts with a

Datubāzes

VIDZEME HIGH SCHOOL LIBRARY



EU INFORMATION





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Inventory of ICH

How to make an entry

Resources

Documents



WHAT IS A JOINT CATALOGUE?



Items in the Museum Holdings

6 607 034

Items in JCNHM

1 786 954 (27.05%)





Monēta Štolbergas grāfistes 1/6 dālderis LM 5952



Rakstiskie priekšmeti

ISAP AAII SUVAZIAVIMU DANDEI **BOKSO VARŽYBOS**















Museums in the map













Register Log in

> WHAT IS A JOINT CATALOGUE?









Objects	VRVM 176655	SEARCH
Search in the file's content		Advanced search

■ DESCRIPTION OF THE OBJECT

Add to selection

■ LIST OF ATTACHMENT FILES

POSTCARD

http://www.nmkk.lv/ltems/ltemViewForm.aspx?id=167748

Rīgas vēstures un kuģniecības muzejs

Registration mark: VRVM 176655

Title or name:	Gruss aus Riga.			
Name of the object:	postcard			
Description of the object:	Coloured and sent by post.			
Description of the content:	A photomontage postcard with five views of Riga. The central city panorama with the new Pontoon Bridge opened in 1896 and the Mazā Guild building in the right corner. Below these images, the city theatre, Vērmanes Garden and the bridge across the canal by Bastejkalns.			
Type of collections:	Pamatkrājums			
Type of the object:	Written museum objects >> Printed materials >> Job publications >> Postcards			

Pastkartes (atklātnes), apsveikuma kartes II

More

Collection:







Translation test

Manual translation

A photomontage postcard with five views of Riga. The central city panorama with the new Pontoon Bridge opened in 1896 and the Mazā Guild building in the right corner. Below these images, the city theatre, Vērmanes Garden and the bridge across the canal by Bastejkalns.

Hugo.lv translation

A postcard is assembled from five views of Riga - downtown panorama with the new Pontonbridge discovered in 1896, the Little Guild House in the right corner, under these images - City Theatre, Verman Gardens, a bridge over the canal near BastejHill.

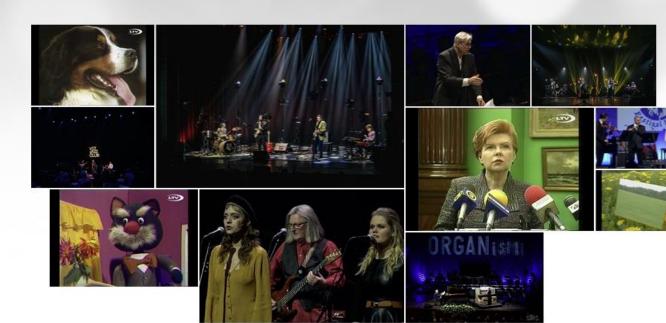












AUDIO SELECTIONS VIDEO





























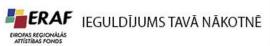














meklēšana..

Q

AUDIO VIDEO SELECTIONS

































First National Persons (2003-10-23)



To assess:

★★★★★(0)

(0) (17) **(**

Associated episodes:





First National Persons (20...







First National Persons (20...

Journalist Ervins Grandava talks in TV studio with the President of Latvia Vaira Veeks-Freibergs * talk about coalition party disagreements

Ether dates: 2003-10-23 Timing: 0:26:05



FIRST PERSONS OF THE STATE

AVAILABLE: 228 episodes TOTAL VIEWED: 327 times AVERAGE SCORE: 4.3 (3)

To the list of episodes

Each Thursday evening, the journalist, Baiba Strautman, called on one of the people recognized in the country to open a conversation on the broadcast of "The First People of the State". The half-hour broadcast, B.Strautman, has been described as "No provocation, but we're setting up a trap."

Broadcasts have generally taken place in a rather tense atmosphere, since questions have been raised directly and often unpleasing to the first parties of the country. The choice of people to be invited to the programme has taken place in line with the times.

Since 2005, Amber Kolat became the broadcasting director. Unlike his predecessor's colleague, Baiba Strautmanis, he preferred a satirical interdiction style. On the style of running his and former broadcast host B.Strautman's broadcast, Dz.Colate has said: "... The punctuality, sharpness and discomfort of Baiba's issues cannot be overcome by the interviewer. Obviously, my driving style is different. I try to look at the widest possible range of questions and not go in depth, but in the expanse."

On the broadcast's guests, Dz.Kolate says, "It's interesting to watch a person suddenly switch from laughter to hysterical seriousness" during an interview.

Sources:

Bear, Zane. Baiba Strautman places a trap for the first people: [for progr. "LTV 1" broadcast "State First Person"]/Zane Erase. Independent Rite newspaper for Latvia Piel. 'The rest. TV'; No. 22, No 128 (2005, 3 June), p. 6

The content of your audio-video file has been transcribed

Speed

Medium ▼ Download text Download caption

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R1: Tas ir raidījums Valsts pirmās personas. Šovakar tiekamies ar Valsts prezidenti. Vaira Vīķe, Freiberga Vakar

R1: Jūs šonedēļ bijāt vizītē Portugālē iepriekš. Reizes, kad mēs šeit ar jums tikāmies, jūs izteicāt.

R1: Lielu prieku par iespēju tikties ar vairāku valstu prezidentiem neformālā gaisotnē, kas prezidentiem ir neformāli. Vai tas ir ārpus apartamentiem ārpus pilīm golfa laukumā, kā tas ir.

R2: Nu jā, tas viss ļoti relatīvs jēdziens, jo īstenībā mēs nostrādājām vaiga sviedros, filmēts ar ļoti garām darba sesijām.

R2: Pie tam sarunas turpinājās arī pie pusdienu galda un pie vakariņu galda.

R3: Kas ir tā neformālā puse, neformālais nozīmē.

R2: Tādā nozīmē, ka mums nebija, nebija tādi stingri noteiktu programmu. Portugāles prezidents bija izvirzījis tādas vispārējas tēmas.

R2: Tā kā iespējam, teiksim, uzsāktas sarunas par viņām, bet būtībā tās sarunas noritēja ļoti brīvā gaisotnē, mēs sākām debatēt par vienu jautājumu, tad izmainījāmies ar

R2: Ar viedokļiem un un kāds izstāstīja kādu anekdoti no savas valsts pieredzes un tā tālāk, un tā mēs atkal nonācām pie cita.

Tēma, Tas nozīmē, ka drīzāk nekā redziet, bilaterālās tikšanās, piemēram, katrai valstij ir zināmi jautājumi, ko viņa vēlās otru uzrunāt.

R3: Kurā viņš ienāca politikā ar balsi.

0:00 / 26:10

R2: Tiem un tā tālāk. Un tā tālāk šeit bija tā, ka bija tiešām viedokļu izmaiņu, brīvu domu izmaiņu par to, bet arī rūpes īstenībā bija tāda kopēja rūk.

R2: Visus interesējošām tēmām un tā ir viena par Eiropas identitāti. Ko nozīmē būt eiropietim kā tūristu tvert. Bija rūpes par plaisu starp Eiropas institūcijām un caurmēra iedzīvotāji. Un tā doma, ka prezidenti.

R2: Kas ir savā ziņā arī vidutājs starp valdībām un starp tautu daudzos jautājumos. Viņi arī šajā jautājumā varētu būt.

R2: Kā tāds vidutājs, lai palīdzētu izprast katram savā zemē, savā tautā. Ko nozīmē, varētu teikt, visas šīs jaunās Eiropas veidošanas

Language tools About Hugo Help My profile Privacy Feedback

From

_atvian English Russian Ukrainian General ▼

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R2: Nu jā, tas viss loti relatīvs jēdziens, jo īstenībā mēs nostrādājām vaiga sviedros, filmēts ar loti garām darba sesijām.

R2: Pie tam <u>sarunas turpinājās arī</u> pie <u>pusdienu galda</u> un pie vakariņu galda.

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R3: Kurā viņš ienāca politikā ar balsi.

■ Upload or drag a file

To

English

Russian Ukrainian

🗘 Translate

R1: It's broadcast The First Persons of the State. Meet with the President of the State tonight. Vaira Weaver, Freiberg Yesterday

R1: You were on a visit to Portugal earlier this week. The times you and I met here, you said.

R1: It is a great pleasure to have a meeting with presidents of several countries in an informal atmosphere that is informal to the presidents. Is it outside the apartments outside the palaces on the golf course, as it is.

R2: Well, it's all a very relative concept, because in reality we worked in cheek sweat, filmed with very long working sessions.

R2: In addition, talks continued at the dinner table and at the dinner table.

R3: What is the informal side of it, in the informal sense.

R2: In the sense that we didn't have, there were no such rigidly defined programs. The Portuguese president had raised such general topics.

R2: As we can say negotiations have been launched, but basically they were negotiated in a very free atmosphere, we started the debate on one issue, then changed with

R2: With opinions and somebody explained an anecdote from our country's experience and so on, and so we came to one another again. Subject: It means that rather than see, bilateral appointments, for example, each country has





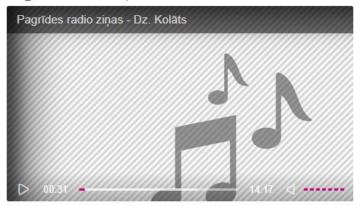
VIDEO



IZLASES & TOPI



Pagrīdes radio ziņas - Dz. Kolāts



Novērtēt:

* * * * (5)

(0) (266) **(**

Saistītās epizodes:







Pagrīdes radio ziņas - A. B... Latvijas Radio ziņas 1991.... Daiņa Īvāna aicinājums ar..

Language tools ▼

About Hugo





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Speed

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R1: Uzmanību, uzmanību raida Latvijas Radio, uzmanību raida Latvijas Radio.

R2: Mēs turpinām programmu gan vairs ne no Radio mājas Doma laukumā. Jūs varat meklēt mūsu apmēram 200 metru diapazonā vidējos viļņos. Ja kāds ir fiksējis mūsu raida vilni, lūdzam par to informēt paziņas visus līdzcilvēkus.

R2: Mēs iespēju robežās centīsimies informēt jūs par situācijas attīstību Latvijā un Padomju Savienībā, par svarīgākajiem pieņemtajiem dokumentiem šajā sakarā mēs raidīsim latviešu.

R2: Un iespēju robežās arī krievu valodās uzmanību raida. Latvijas Radio raida Latvijas Radio

R2: Tagad, cienījamie klausītāji, mēs iespēju robežās centīsimies iepazīstināt jūs ar pagājušās nakts notikumu hroniku, kurā daļēji jums droši vien ir zināma, bet atkārtosim notikumu secība, kuru varētu sākt apmēram no

R2: pulksten 20.00 tiem, kad īsi pirms pulksten 20.00 tiem pārtrauca savus raidījumus Latvijas Televīzijā.

R2: Tā iemesla dēļ, ka viņiem desantnieki 20 55 minūtēs bruņoti formējumi, iespējams, melnās beretes ieņēmuši Iekšlietu ministrijas ēku un Rīgas pilsētas lekšlietu pārvalde.

R2: Ziṇas, Aptuveni pulksten 21.00, 30 no Krievijas. Mazliet optimistiskāk skanēja tas, ka daļa armijas pārgājusi Krievijas prezidenta Jeļcina pusē, viņš

nazīmāc Kriavijai uzticamas armijas virenavālnieku

▶ 0:00 / 14:17 ——



Language tools

About Hugo

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API interfaces

State and municipal bodies may use the translation service in an information system or another app developed by them. If you would like to receive an API description, please send a request to: help@kis.gov.lv

Machine translation API Speech-to-text API Text-to-speech API

Used by:

- State e-services portal Latvija.lv
- Tax revenue service Electronic declaration system
- State .gov portal (60+ websites)
- Court administration Electronic auction portal
- Intangible cultural heritage portal

... and others



Benefits for public sector (gov & municipality)

CISC

- Covers platform infrastructure costs
- Maintenance and monitoring of platform
- Provides centralized support and trainings
- Cooperation with developers
- Planning future developments
- Gathers language data

Institution

- Platform free of use (API, web services)
- Easy deployment of virtual assistant (no coding required for standard use)
- Covers costs of API and specific use integration in systems/website



Culture Information Systems Centre Republic of Latvia

Jānis Ziediņš Deputy director for ICT janis.ziedins@kis.gov.lv