New Media & Language Technologies

Jozef Stefan International Postgraduate School

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Speech apps

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THE VOICE WEB

***The voice web* offers access to information and services (to companies, ICT networks) via a telephone.**

# The telephone is everywhere

241 M
connected PCs

20 M
wireless web
devices

**telephones
1.3
billion**

**2005
2.1
billion**

Sources: IDC, Yankee Group

Voice Web evolution

2005+ **Universal remote control**

2005+ **Voice dialtone**

2001 **NG telephone**

Q1 '01 **1st wireless voice portal**

Q2 '00 **1st voice portal**

Q4 '99 **Voice Web defined**

Q4 '98 **V-Commerce defined**

Q1 '96 **1st speech application**
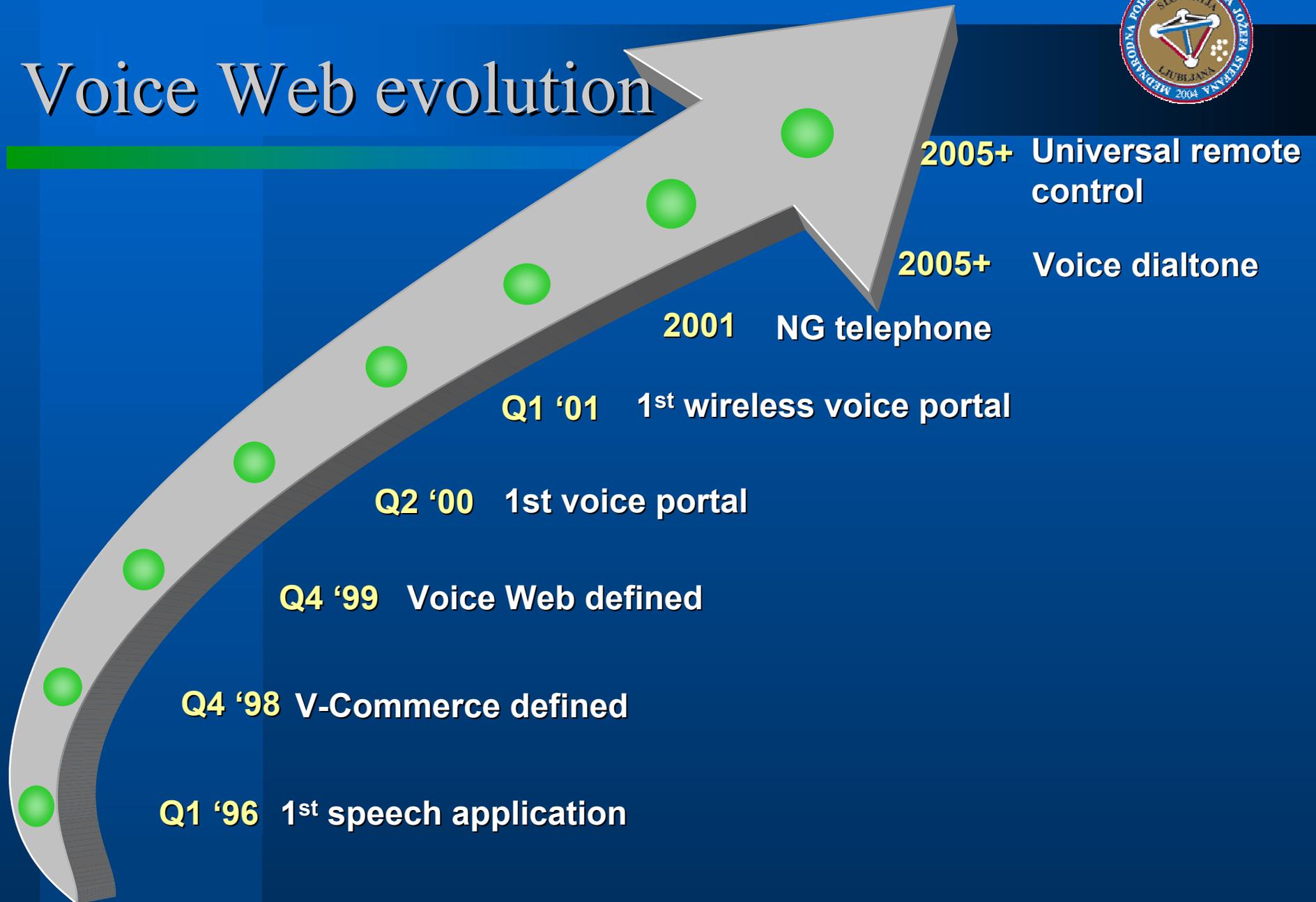
Market size

"Market size estimate in the "voice ecosystem" in 2005: <u>$12 billion</u> "

Year	2000	2001	2002	2003	2004
Value	16	22	48	96	128

Voice web users in USA (millions)
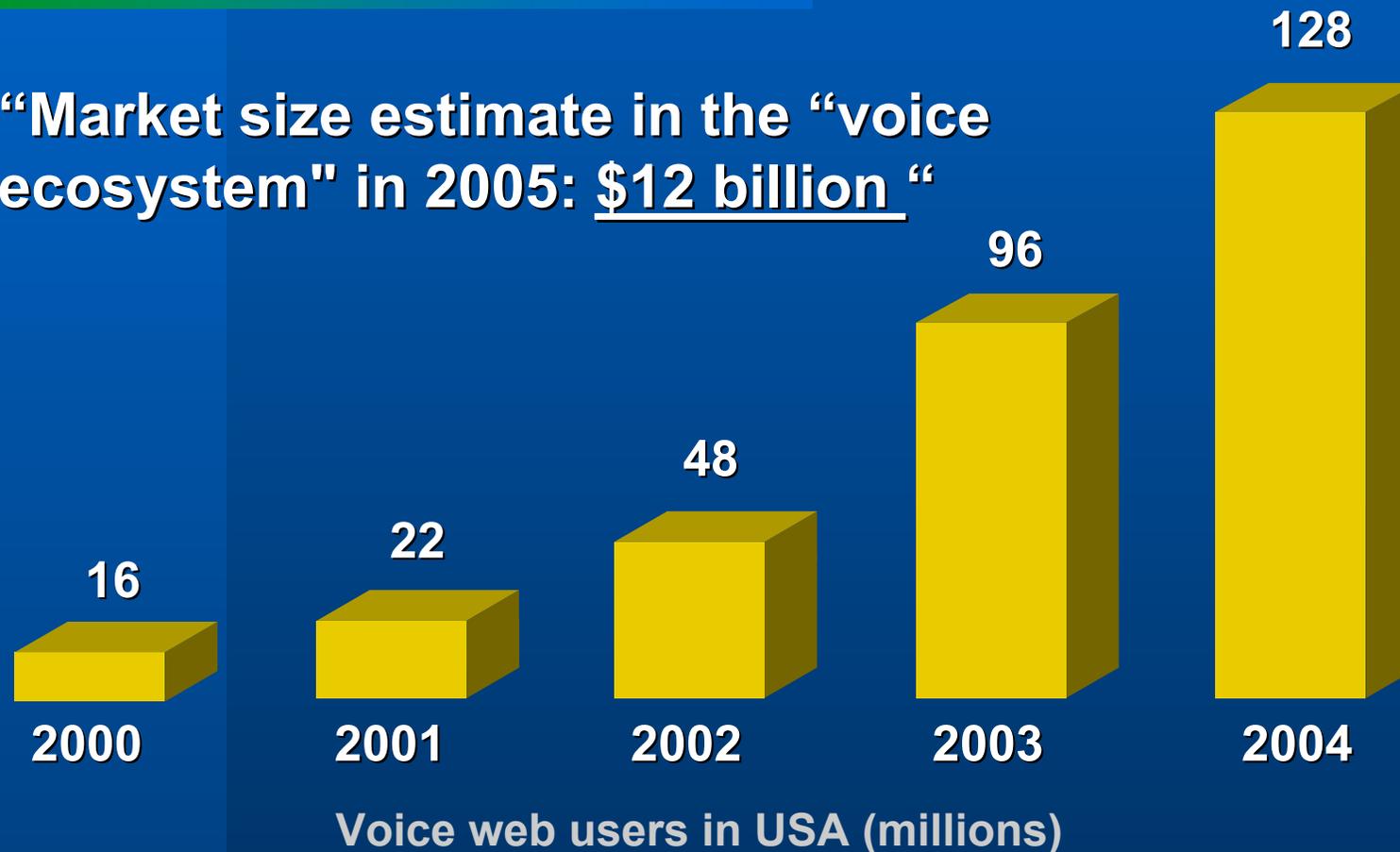
Source: The Kelsey Group

Parallels: Internet and Voice Web
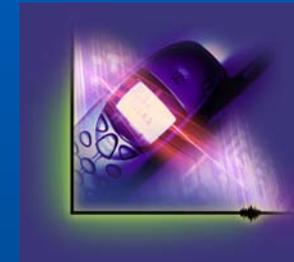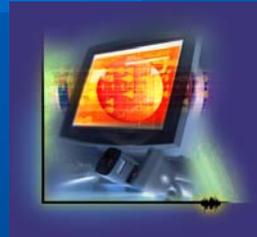
	PC/Keyboard	Phone/Voice
Mode of Input	PC/Keyboard	Phone/Voice
Mode of Output	Screen	Audio/TTS
Navigation/Interface	Browser	Voice Browser
Aggregator	Portal	Voice Portal
Content	Website	Voice Site
Markup Language	HTML	VoiceXML
Component Technology	JavaBeans/COM	SpeechObjects
Security	Passwords	Voiceprints

Voice Web applications

Portal	Enterprise	Telco
V-Commerce	**Finance**	**Dialtone**
Voice Portal services	**Travel**	**Messaging**
Access to internet contents	**Commerce**	**Directory**
	CRM	

Applications – carrier grade

Portal	News
	Weather
	Stock info
Universal	Voice dialling
	Voice mail
	IM
Search	Person
	Enterprise
	Content
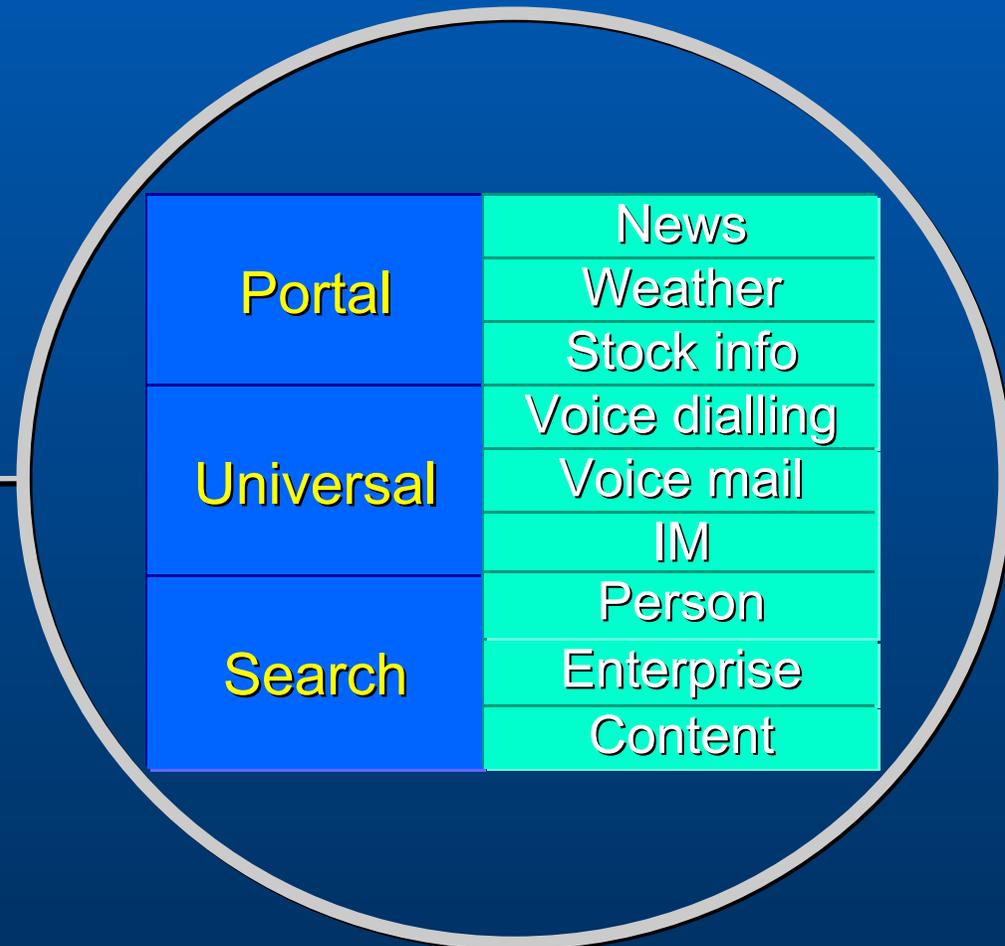
Applications: dialog systems

Speech recognition	Speech understanding	Speech authentication	Speech synthesis
"My account status, please."	Action: account Order Type: info	VoicePrint	"Stanje na Vašem TR je 100.000 SIT."
Accuracy	*Intelligence*	*Security*	*Naturalness*

Voice browser

Unified messaging

@ unified access to different types of messages

@ transformation between message types:

– e-mail	►	voice
– v-mail	►	e-mail
– e-mail	►	fax
– SMS	►	voice
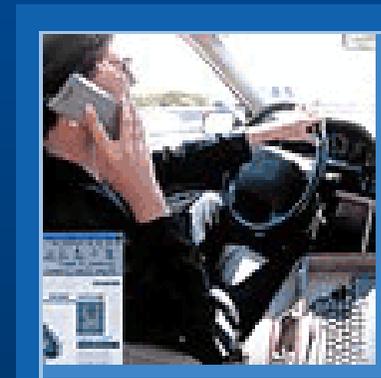
SMS2Voice

Glasovni SMS

Glasovni SMS je zabavna in tudi zelo koristna storitev, predvsem za voznike, starejše in tiste z okvaro sluha ali vida. Deluje povsem preprosto:
na številko 1919 pošljite SMS s ključno besedo POVEJ, številko naslovnika in besedilo sporočila.
Sistem vaš pisni SMS s pomočjo sintetizatorja pretvori v govorno sporočilo. Nato vzpostavi klic z naslovnikom ter mu pove vašo številko in sporočilo.

Primer: imetnika/co številke 041700700 želite povabiti na kavo => na 1919 pošljite POVEJ 041700700 Vabim te na kavo ob 16. uri pri meni doma.

email2voice

- automatic e-mail reader:

    - telephone access to e-mail

    - replies to e-mails

    - automatic language identification

    - web administration

- Glasovna e-pošta (Mobitel d.d.)
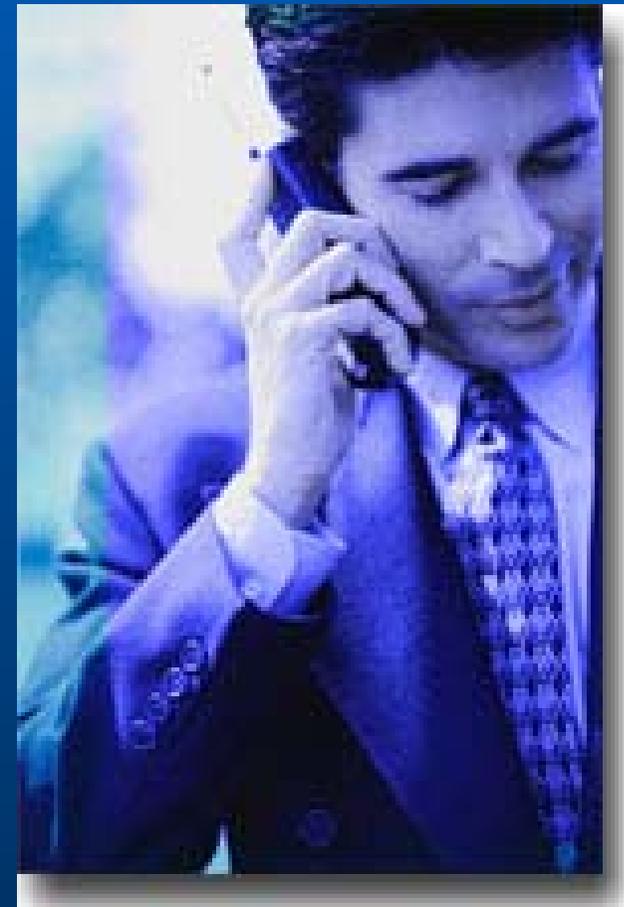
email2voice

System: Dobrodošli v Systemu za branje elektronske pošte. Prosimo, vtipkajte geslo in pritisnite lojtro.

…. Imate eno novo sporočilo. Pritisnite ena, če želite poslušati nova sporočila, pritisnite dve, če želite poslušati že slišana sporočila.

Prvo sporočilo, prejeto v torek, 28. maja, ob 14.30.

Pošiljatelj: Jerneja Gros

Zadeva: Glasovni bralnik E-pošte

Vsebina sporočila: Spoštovani!   Poslušate predstavitev avtomatskega bralnika elektronske pošte. Sistem omogoča telefonski dostop do vaše elektronske pošte preko poljubnega telefona.

Lep pozdrav in veliko zabave ob testiranju nove storitve. Jerneja Gros

…..

email2voice

- **menues:**
  - news messages
  - old messages
  - user settings

- **message handling:**
  - goto next phrase
  - goto previous phrase
  - goto start of message
  - goto previous message
  - goto next message
  - reply to the message
  - delete message
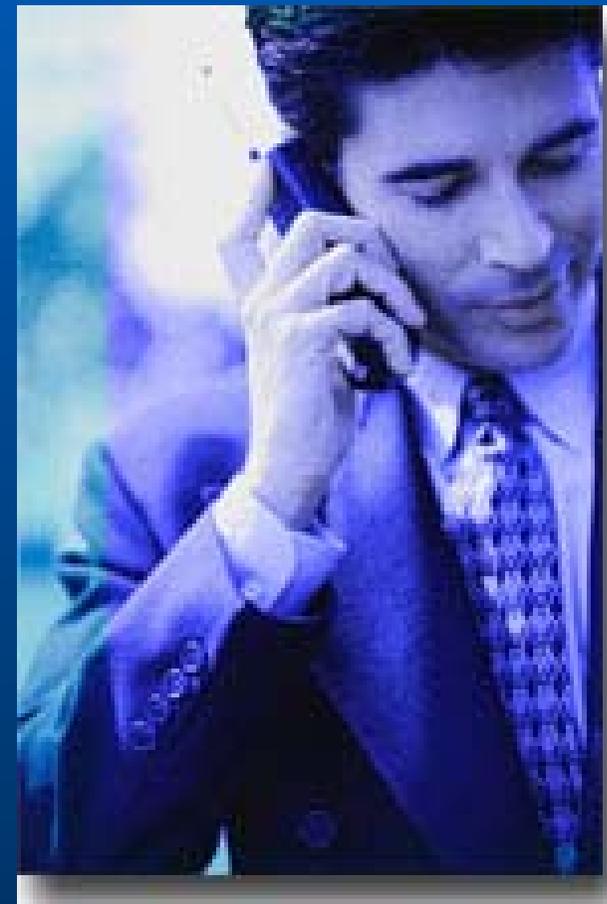
User opinions

2005 Voice Web Study

"This sounds too good to be true. Much value!"

"It would open up new and wonderful things to me."

"technology like this is the future…"

"Lets me be more productive, be in contact with important information. Saves me time."

"… I could produce better quality work."

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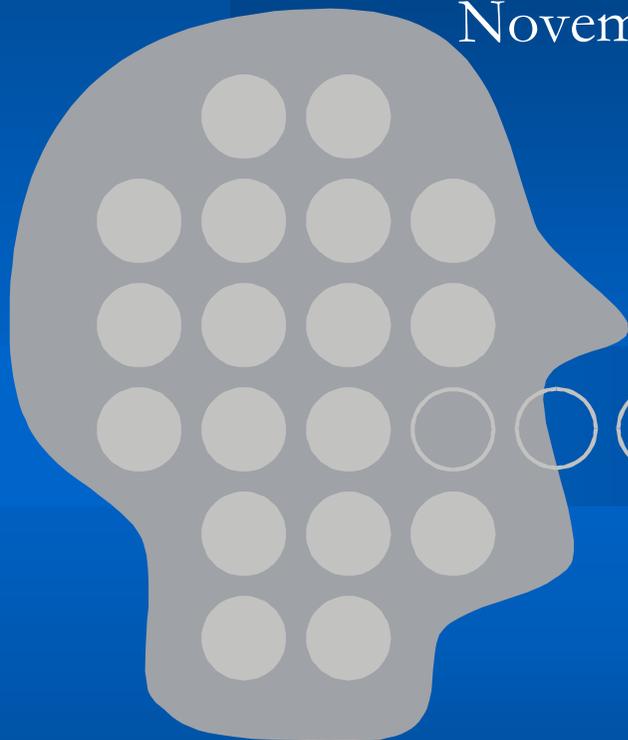
Speech apps

THANK YOU FOR
YOUR ATTENTION!