

Joint ITU - AICTO Workshop on “Interoperability of IPTV in the Arab region”

(Dubai, UAE, 20 – 21 September 2011)

E-accessibility, basic concepts and current situation in the Arab region

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AGENDA

- Presentation of UTIC Laboratory
- E-accessibility
- Web accessibility
- WCAG 2.0
- Situation in the Arab region
- Some UTIC e-accessibility projects

Research Laboratory UTIC University of Tunis

- Web Accessibility
- Accessible e-learning
- Using ICT to improve communication with Deaf
 - Project WEB SIGN
 - Project MMS SIGN

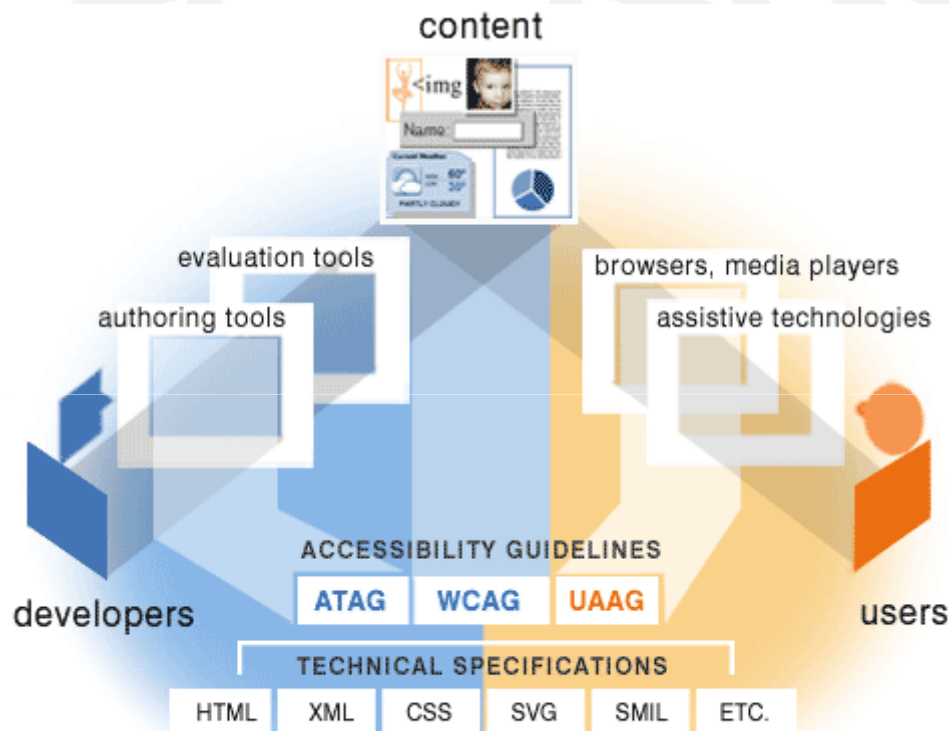
E-accessibility

- The scientific community has recently been aware about the importance of accessibility of people with disabilities to information technologies, called **e-accessibility**
- This word is specifically used to describe tools and means allowing users regardless of their culture, language, age, disability to reach information and new technologies like Internet, without dependence or aid

The W3C Web Accessibility Initiative (WAI)

- Within the W3C, the Web Accessibility Initiative (WAI) works to help the accessibility of the Web to people with disabilities through:
 - Technology support
 - Evaluation tools
 - Education and outreach
 - Coordinating with research and development
 - Guidelines development

The Web Accessibility Guidelines



- **Web Content Accessibility Guidelines (WCAG)**
- **User Agent Accessibility Guidelines (UAAG)**
- **Authoring Tool Accessibility Guidelines (ATAG)**

Assistive technologies

- Screen reading software (speaks displayed text and allows simulating mouse actions with the keyboard),
- Screen magnification software (for enlarging the content of the screen),
- Braille display (for displaying Braille characters),
- Speech recognition software (for text input or user interface control via speech),
- Alternative pointing devices (e. g. Foot operated mice, head mounted pointing device, or eye tracking systems),

Examples of non conformity to accessibility guidelines

- images that do not have alternative text
- complex images (e.g. graphs or charts) that are not adequately described
- video that is not described in text or audio
- tables that do not make sense when read serially (in a cell-by-cell mode)
- frames that do not have "NOFRAME" alternatives, or that do not have meaningful names
- browsers and authoring tools that lack keyboard support for all commands
- browsers and authoring tools that do not use standard applications programmer interfaces for the operating system they are using

Examples of conformity to accessibility guidelines

- All links are expressed explicitly which make blind people in comfort when navigating.
- All the illustrative images are accompanied by textual alternatives.
- The content is totally independent of presentation by using CSS technology.
- The help and content plans are present in all the pages.
- A local search is integrated into the web page in order to facilitate information research.



**Examples of a “non accessible”
web site**



Espace candidat

Espace entreprise

ACCUEIL

LES OFFRES

CONSEILS CARRIÈRE

MES CV

MES LETTRES DE MOTIVATION

MES DOCUMENTS

DÉMO



Rechercher un emploi :

Mots-clés

Tous les métiers

TROUVER

Voir les 354 annonces

N'attendez plus la presse du dimanche pour trouver un emploi !!!
Des centaines d'offres vous attendent : RECHERCHER, SELECTIONNER, POSTULER

Le tout emploi sur Keejob !

Identification

Adresse e-mail

CONNEXION

Mot de passe oublié ?

NOUVELLE INSCRIPTION

Newsletter

Adresse e-mail

S'INSCRIRE

Avec ELISSA
Internet est en toit
et pour 1DT les 48h



Inscription candidat

Informations personnelles

Civilité	Mlle
Nom *	
Prénom *	
Date de naissance	01 01 1992
Email *	
Confirmez votre email *	
Mot de passe *	
Confirmez votre mot de passe *	
Téléphone/GSM *	
Téléphone 2	
Adresse *	

Photo

Photo No file chosen (jpg uniquement)

Pour vous rendre plus visible des recruteurs, insérez votre photo.
Elle accompagnera votre CV dans la base candidats. Lors de l'envoi de votre candidature, Keejob vous donne la possibilité de choisir de l'inclure ou pas.

We need 67 tab to attempt this information

Mailing

Je souhaite recevoir des offres des partenaires de keejob

Je souhaite recevoir la newsletter de keejob

We have to fill 45 fields before this information

Tapez le code affiché : accepter

J'ai lu et accepté les [Conditions Générales d'Utilisation de Keejob](#)

* champs obligatoires



Espace candidat

ACCUEIL

LES OFFRES

CONSEILS CARRIÈRE

creating account page

Photo

Photo No file chosen (jpg uniquement)

Pour vous rendre plus visible des recruteurs, insérez votre photo.
Elle accompagnera votre CV dans la base candidats. Lors de l'envoi de votre candidature, Keejob vous donne la possibilité de choisir de l'inclure ou pas.

Mailing

Je souhaite recevoir des offres des partenaires de keejob

Je souhaite recevoir la newsletter de keejob

Tapez le code affiché : accepter

ATJPWXG

J'ai lu et accepté les [Conditions Générales d'Utilisation de Keejob](#)

* champs obligatoires

The captcha is an image, it can not be read by the screen reader

However, it should be placed before the input area

Connection page

Identification

CONNEXION

Inscription candidat

Informations personnelles

Civilité

Mlle

```
<input onclick="return verifConnexion();" type="image" src="image/gif/  
connexion_candidat.gif" border="0" alt>
```

After the registration blind can not find the button "connexion".

The button is an image without textual alternative.

WCAG 2.0

- 11 December 2008
- Four principals: POUR
 - Content must be **P**erceivable
 - Interface components in the content must be **O**perable
 - Content and controls must be **U**nderstandable
 - Content should be **R**obust enough to work with current and future user agents (including assistive technologies)

Situation in the Arab region

- Some countries are deploying considerable efforts towards awareness of the importance of making public information, digital content and web sites in accessible formats for PWD
- Some countries have not yet such preoccupation.
- Nevertheless, the accessibility of web sites and online content is still a serious barrier for PWD in all countries of the region.

Situation in the Arab region

- In the same line, even if there is a good willing of some governments toward the accessibility of web sites (at least governmental and public institutions web sites), training webmasters the technical specifications and the WCAG guidelines constitutes an obstacle.

Situation in the Arab region

- Assistive technologies equipments are very expensive and funding is a grave problem for PWD, especially in poor countries that are unable to give financial aid to PWD.
- The cost of specific material and related software is one of the main problems of the use of ICT by PWD. For instance, for a blind, the cost of its computer, Braille keyboard and screen reader software is almost 5000 US \$.

Some UTIC applications



Translation of WCAG2.0 To ARABIC

www.utic.rnu.tn/wcag2.0

Web Content Accessibility Guidelines (WCAG) 2.0

Lead translating organization :

The research Unit of Technologies of Information and Communication UTIC
Higher School of Sciences and Technologies of Tunis
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B. P. : 56, Bab Menara, 1008 Tunis, TUNISIA
Republic of Tunisia

Web site : <http://www.utic.rnu.tn/>

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ترجمة عربية معتمدة

تاريخ الإصدار 11 جوان 2010

النسخة الحالية:

<http://www.utic.rnu.tn/wcag2.0>

النسخة الأنكليزية:

Dated URI of the original W3C document

تصحيح:

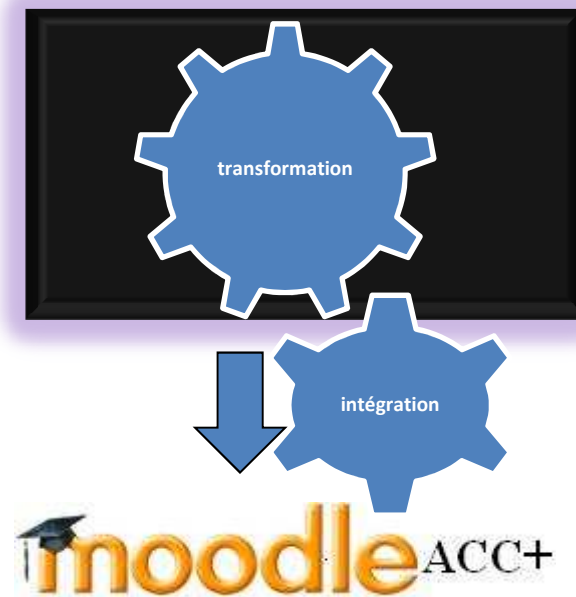
-

منظمة الترجمة:

وحدة البحث في تكنولوجيات المعلومات و الإتصال بجامعة تونس
المدرسة العليا للعلوم والتقنيات بتونس
5 شارع طه حسين، ص.ب 56 باب منارة 1008
الجمهورية التونسية

Accessible e-learning platforms (Moodle Acc+)

- Integrating learners accessibility preferences
- Making controls and displays accessible
- Importing/exporting learners accessibility experience





Accessible e-content for DEAF

WebSign

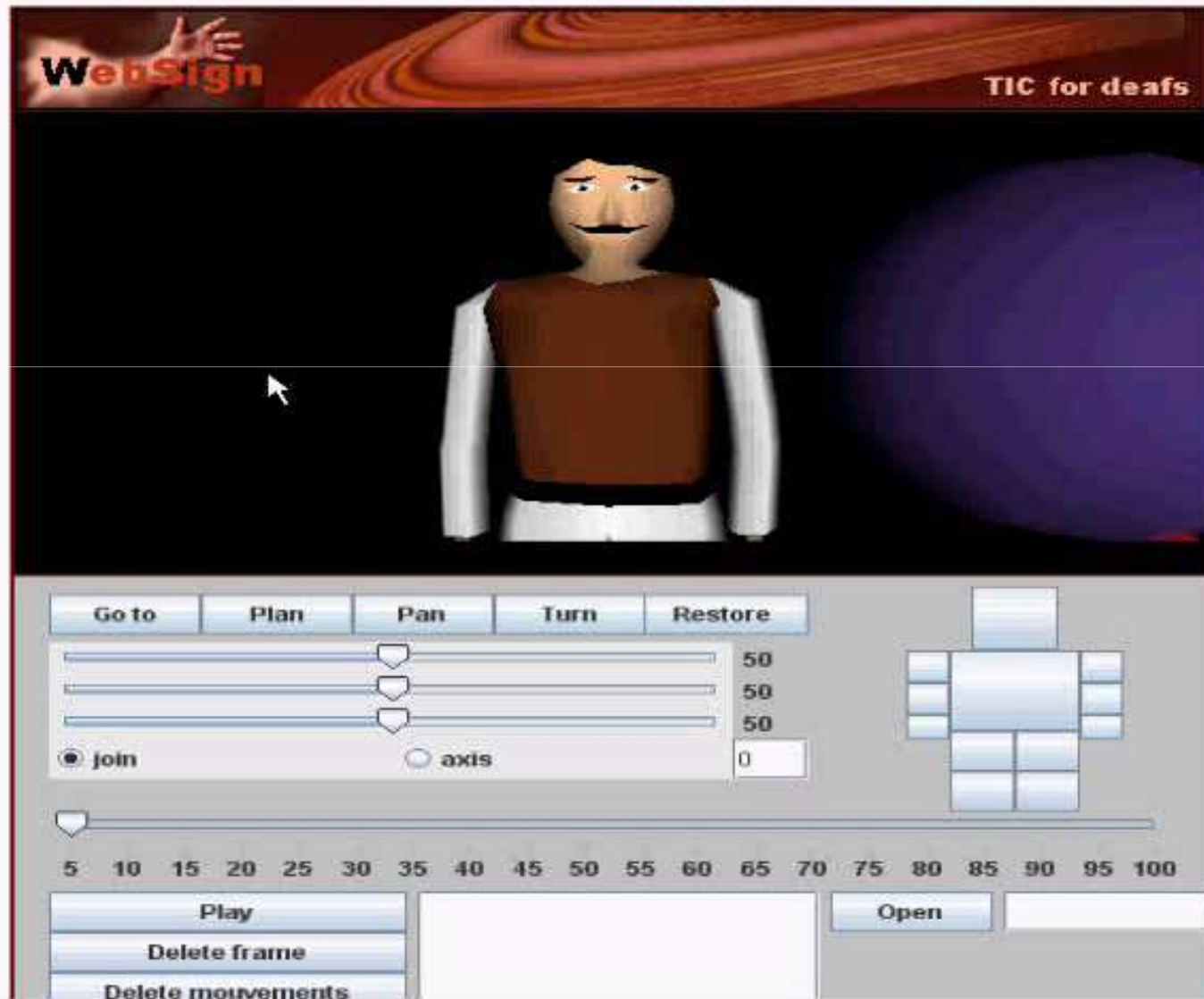
- Allow communication with deaf people using sign language via the web and internet.
- Automatic translation of written text to sign language.
- Development of avatar based system.



Demonstration



Our approach

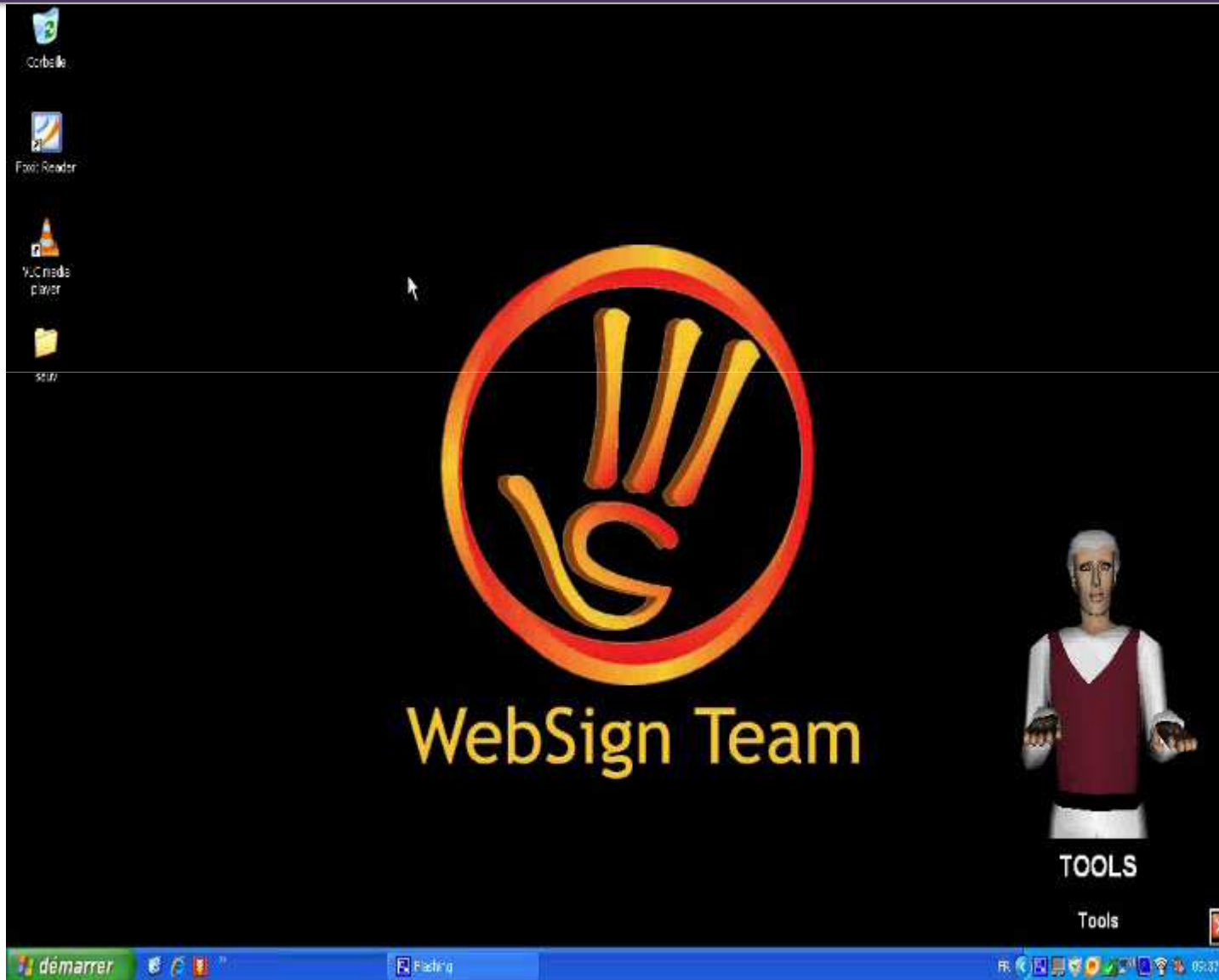


Some WebSign based applications

Courses generator for deaf children

[Demonstration](#)

Screen Reader



MMS Sign - To make mobile phones accessible for deaf



DEMONSTRATION



Thank you



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www.utic.rnu.tn