Making Cinema Accessible for the Blind and Visually Impaired

EST Congress
15-17 September 2016, Aarhus, Denmark

Agnieszka Walczak,
Universitat Autònoma de Barcelona
• Motivation behind the Test
• The Application
• Methodology
  ➔ Sample
  ➔ Stimuli
  ➔ Measures
  ➔ Procedure
• Main Results & Recommendations
• the Catalan Government and the Catalan television (TVC) have developed the **ArtAccéss application** which offers media access services over smartphones
• services on offer: audio description and subtitles for the deaf and hard of hearing
• UAB invited to carry out tests at the Sitges Film Festival
• aim: test secondary screen workflow with AD users assessing the usability, utility and quality of the service
The Application

- downloads, stores, and plays adapted content (subtitles and/or audio description)
- synchronizes at any time during play, through a sound stamp
The Application
### Ali

**Configuración**

<table>
<thead>
<tr>
<th>Título</th>
<th>Ali</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director</td>
<td>Paco R. Baños</td>
</tr>
<tr>
<td>Actores</td>
<td>Amarillo: Nadia de Santiago como Ali Verde: Verónica Forqué como Alicia Celeste: Adrián Lamana como Julio Magenta: Luis Marco como Antonio</td>
</tr>
<tr>
<td>Año</td>
<td>2012</td>
</tr>
<tr>
<td>País</td>
<td>España</td>
</tr>
<tr>
<td>Categoría</td>
<td>Film</td>
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<tr>
<td>Género</td>
<td>Drama</td>
</tr>
<tr>
<td>Duración</td>
<td>86 minutos</td>
</tr>
</tbody>
</table>

**Sinopsis**

Ali vive en Sevilla con su madre Alicia, ambas son una familia un poco extravagante, la hija es una joven rebelde que tiene grandes miedos: miedo a conducir y a enamorarse. Su madre es distinta, es una mujer muy enamoradiza y depresiva, así que desde hace tiempo Ali hace de madre y Alicia hace de hija: esta

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### Versiones de la película Ali

**Subtítulos**

- Subtitulado Español

**Audiodiscripciones**

- Audiodiscripción Español
The Application
Methodology: Sample

- 15 users, 7 men and 8 women, aged 30-60 ($M=47.9$, $SD=8.34$)
- 10 blind and 5 partially sighted
- 8 with acquired sight loss, 7 congenitally blind
Methodology: Sample

Are you an active user of...

- mobile phones
- mobile apps
- social network
- AD

- yes
- no
Methodology: Stimuli

- *Asmodexia* (2014)
- dir. by Marc Carreté
- AD prepared by the Catalan Government
- horror film
  - four days in the lives of an exorcist (Eloy Palma) and his granddaughter (Alba), working in the Barcelona area
- *Carreté has crafted an original and unique entry into the exorcism genre* (IMDb)
Methodology: Measures

- Questionnaire
  - Section A: demographic information (gender, age, type of sight loss, AD experience)
  - Section B: usability, utility and quality of the service scale
    - System Usability Scale (Brooke, 1996)
    - one of the most widely used tools for assessing the perceived usability of a system or product
    - originally developed by John Brooke in 1986
    - it consists of 10 statements to which users rate their level of agreement
Methodology: Procedure

• before the screening
  ➔ a call made to user associations (ACCAPS, FESOCA, ONCE and ACIC) to invite them to the festival
  ➔ tickets provided by the Catalan Government

• screening
  ➔ in a regular session during the film festival
  ➔ participants sitting in the middle right section of the movie theatre
  ➔ participants downloaded and used the application on their own
  ➔ no technical support was offered nor demanded

• after the screening
  ➔ special room booked for interviews
  ➔ participants divided into three groups consisting of five people each and interviewed by the volunteers
Main Results

- Main results
  - overall, the participants enthusiastic about the application
  - usability, utility and quality of service assessed positively
  - average SUS score for 15 participants: **87.2**
    - where <50 – not acceptable; 50-70 – marginal; >70 – acceptable

![SUS Score Graph]

SUS Score
Recommendations

- **Recommendations:**
  - AD track should be put in mono, not stereo mode
    - blind and partially sighted viewers use only one earplug for listening to AD
    - they have to follow the original soundtrack
  - proper sound mix required
    - volume of AD track adjusted to this of a film soundtrack
  - language coherence: film vs AD
    - issue for bilingual countries (e.g. Catalan and Spanish)
  - interface modifications – simplicity preferred
    - black screen – very useful, no complaints from the public
Acknowledgements

• ONCE Association from Barcelona
• Catalan Government
• Sitges Film Festival
• Pilar Orero, UAB
• Olivia Gerber, UAB
• Mónica Álvarez, UAB
Thank you!

agnieszka.walczak@uab.cat