LEAD-ME

Serif – Sans Serif Subtitle Font: Legibility and Audience Preference

Authors

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Eye tracking in media accessibility research - methods, technologies and data analyses

Introduction & Background

- **Subtitle fonts**

➢ Determined by factors such as the platform in which they will be shown, the delivery mechanism and the client.

➢ To contribute to the invisibility of subtitling, distributors habitually opt for neutral fonts, **without serifs**, that do not call undue attention to themselves, like **Arial, Verdana** or **Helvetica**, unless the subtitles fulfill a creative function in the programme.

➢ Integrated titles, normally devised by the creator of the original, make use of bolder font types (Night Watch and Man on Fire).

- Diaz Cintas & Remael (2021, 96)

The following font types and sizes are recommend:

Arial 30 – Latin-based, Cyrillic-based and Semitic languages, Thai

Gulim 35 – Korean

MS Gothic 30 – Japanese

SimHei or Simsun 35 – Chinese

Shusha 35 – Hindi

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NETFLIX

The subsection on "Font Information" is identical for all: white Arial is to be used. (Pedersen, 2018)

8. Font Information
Font style: **Arial** as a generic placeholder for proportional **SansSerif**.

Font size: relative to video resolution and ability to fit 42 characters across the screen.

Font color: White.

BBC

Online Subtitling Editorial Guidelines V1.1

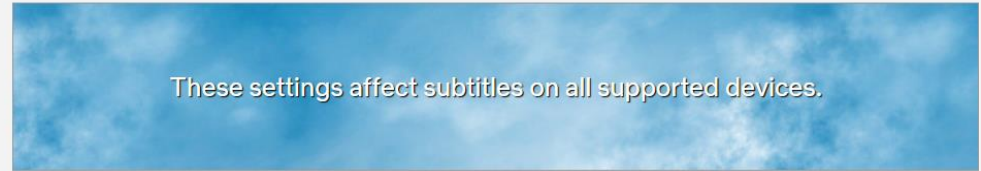13. Preferred fonts are Verdana, Helvetica, Tiresias or FS Me.

Platform	Delivery	Description
BROADCAST	DVB	The subtitle encoder creates bitmap images for each subtitle using the Tiresias Screenfont font
BROADCAST	Teletext	The set top box or television determines the font - this is most commonly used on the Sky platform
ONLINE	IP (XML)	The client determines the font using information from within the subtitle data (e.g. 'SansSerif'). Generally it is better to use system font for readability (e.g. Helvetica for iOS and Roboto for Android). Use of non-platform fonts can adversely impact clarity of presented text.

(**Subtitle Guidelines** BBC © 2018 Version 1.1.8)

Kapwing

Subtitle Edit

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Variability in Fonts (National TV)

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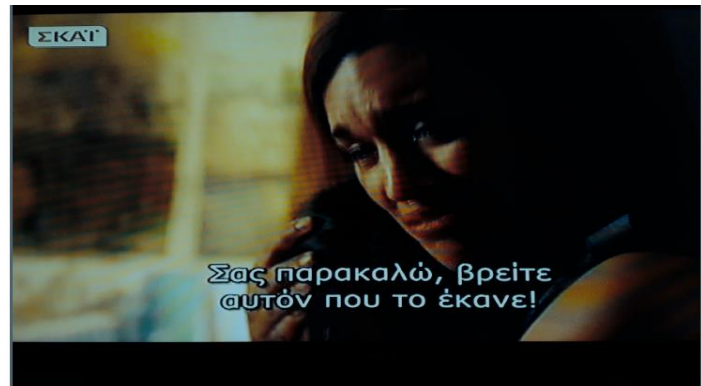
Variability in Fonts 2

Sing-along Trailer

Creative Subtitles

Go, Greased Lightnin'
you're burnin' up the quarter mile

A clock without a craftsman

It doesn't have to be a snowman

I am not sure if I know what that means

7

Study design

- Eye-tracking Video Data Analysis
- Post experiment survey

Research question & hypotheses

Research questions

RQ1 Which font do the audience prefer?

RQ2 How much time did participants spend watching the two subtitle sets?

Hypotheses

H1 The participants will prefer the Sans-Serif Font.

H2 The participants will spend more time fixating on the Serif-Font subtitles.

Participants

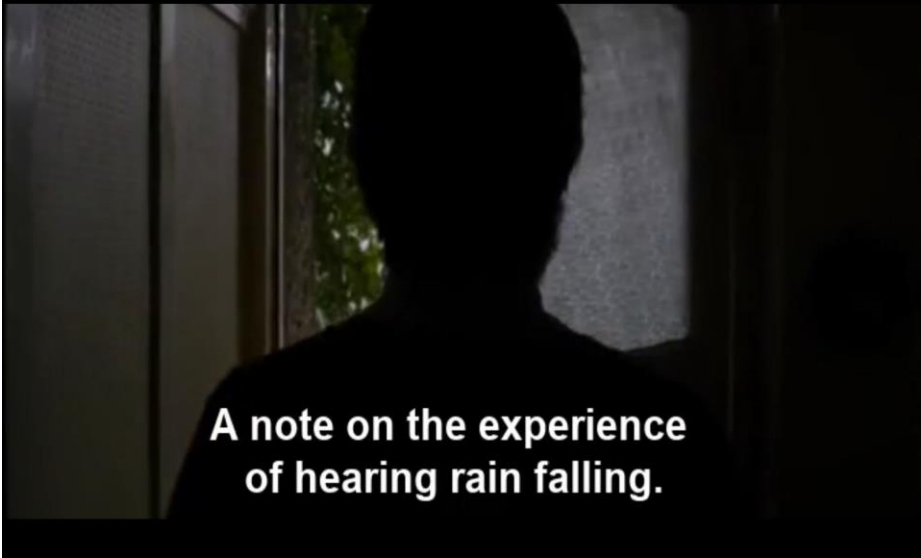- Overall Participants 34
- Above average quality 22

Material used
NOTES ON BLINDNESS (2016)
Duration 23 sec Original dialogue: EN Subtitles: EN
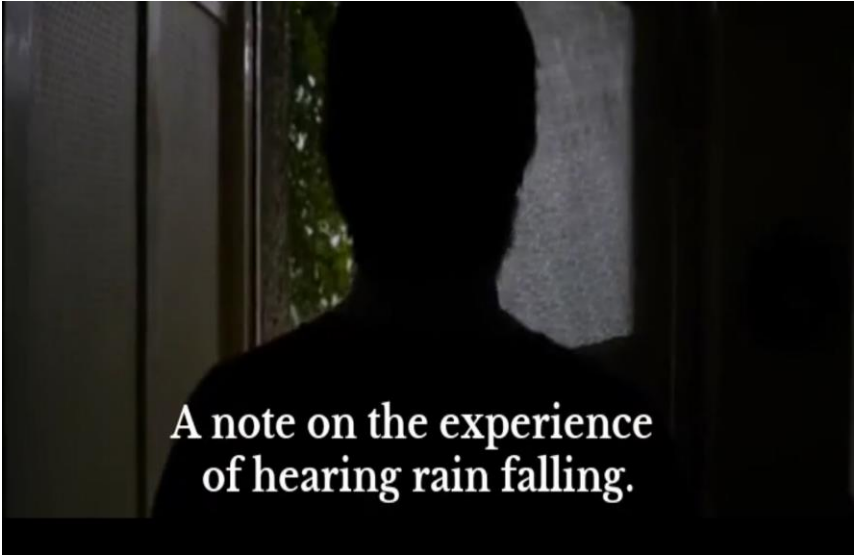
CLIP A Arial

Clip B Baskerville

Results (Heat Maps)

AVERAGE DURATION Within-subjects one-way ANOVA

Response: aoi_fixation_average_duration_ms

	Effect	df	MSE	F	ges	**p.value**
1	item_filename	1, 19	4090.87	3.20 +	.045	**.089**

item_filename	emmean	SE	df	lower.CL	upper.CL
A.mp4	291	19.2	31.7	252	330
B.mp4	327	19.2	31.7	288	366
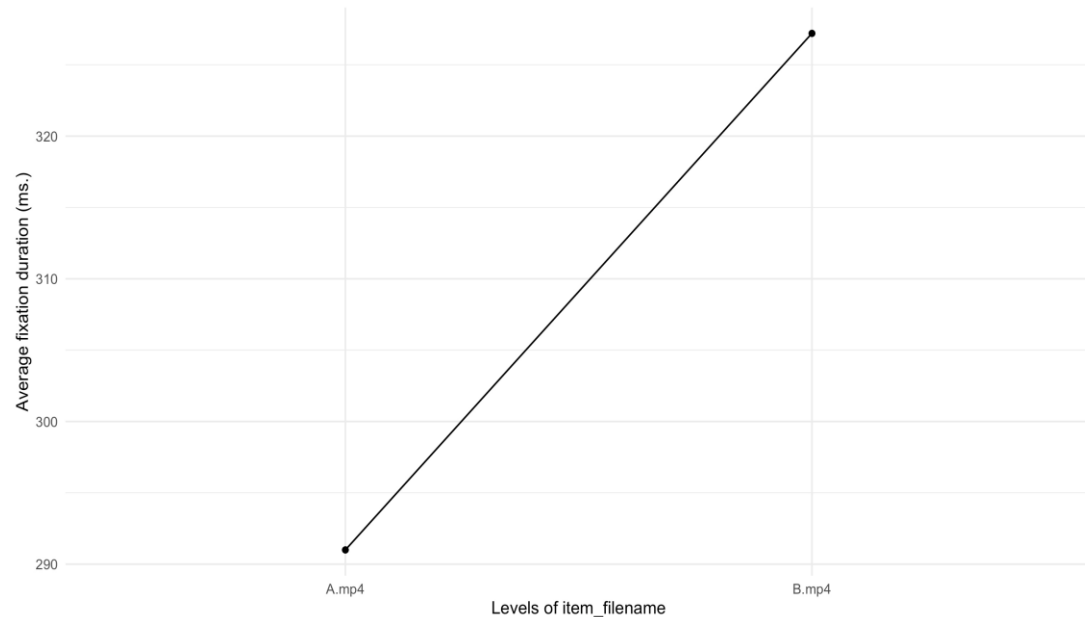
Average Total Time spent Within-subjects one-way ANOVA

Response: aoi_fixation_average_total_time_spent_ms

	Effect	df	MSE		F	ges	**p.value**
1	item_filename	1, 19	11957965.38		13.65 **	.162	**.002**

item_filename	emmean	SE	df	lower.CL	upper.CL
A.mp4	7913	1053	31.3	5767	10060
B.mp4	11954	1053	31.3	9807	14101
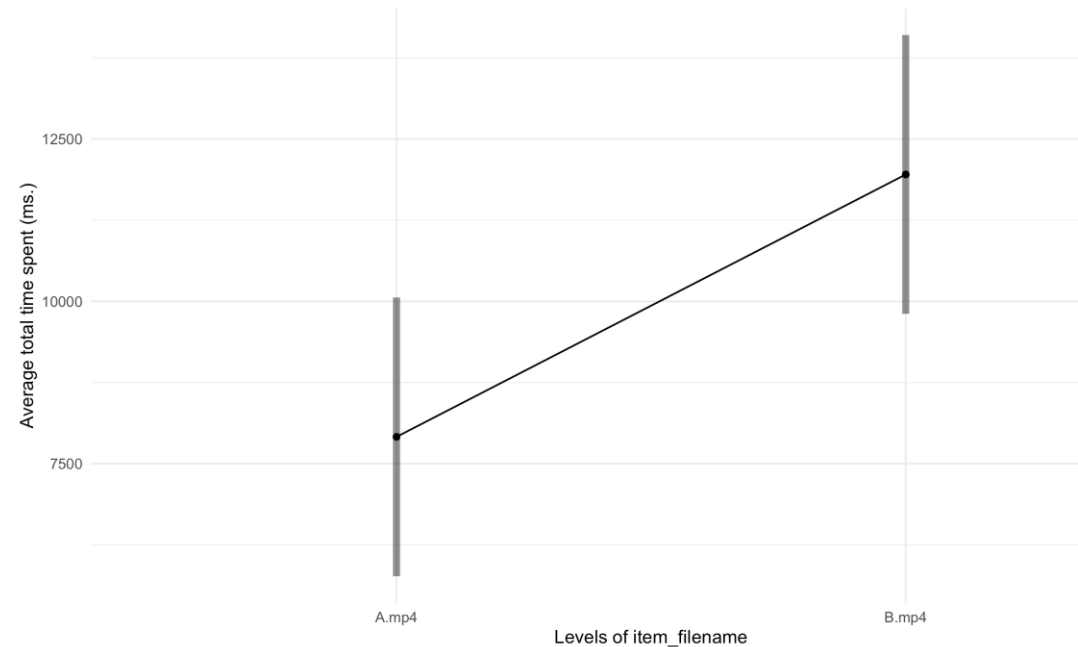
Survey Results

- Did you notice any differences in subtitle fonts?

o Which Font do you prefer?

Differences in Subtitle Font

- Yes
- No

Subtitle font preference

32%

68%

- Arial
- Baskerville

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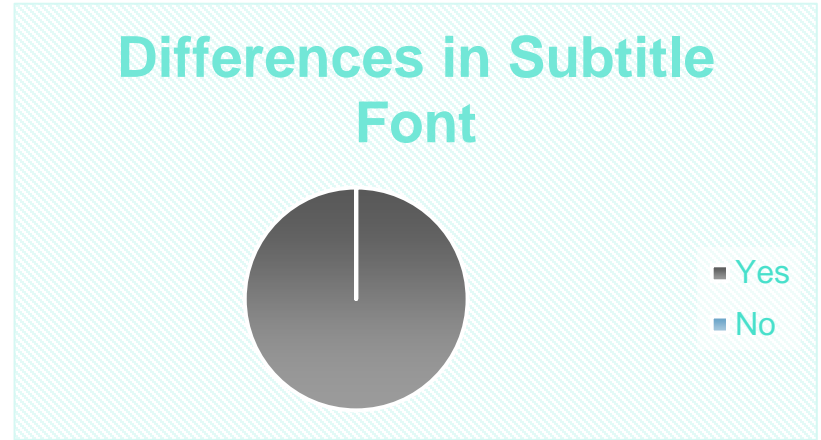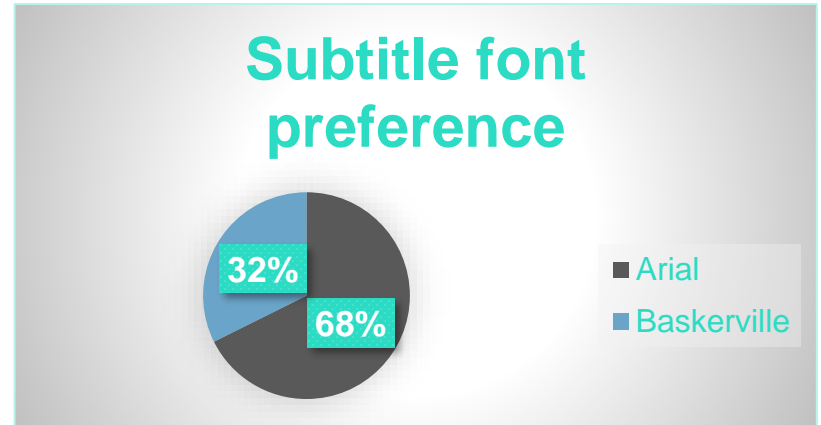
Survey Results

Which font do you prefer? -	Why do you prefer this font? - B.mp4
Baskerville_pic.JPG	It was more pleasant to the eye
Baskerville_pic.JPG	I think it was easier to read but I am not sure
Baskerville_pic.JPG	It's not that big or salient. It looks smooth.
Baskerville_pic.JPG	It looks nicer, but it does attract more attention
Baskerville_pic.JPG	Idk.Because they are just unusual and new to me?
Baskerville_pic.JPG	It seems more artistic and so fits the clip.
Baskerville_pic.JPG	It was much bigger
Baskerville_pic.JPG	Its warmer, it fits the clip
Baskerville_pic.JPG	It works better with the particular scene.
Baskerville_pic.JPG	It fit the atmosphere of the scene.
Baskerville_pic.JPG	It's less boring, I can read it easily.

Which font do you prefer? -	Why do you prefer this font? - B.mp4
Arial-pic.JPG	Easier to read
Arial-pic.JPG	sans-serif may be more easily processed.
Arial-pic.JPG	It did not catch the attention form the main text.
Arial-pic.JPG	It's less disruptive and easier to read.
Arial-pic.JPG	Its more familiar with me
Arial-pic.JPG	More used to this font for subtitles
Arial-pic.JPG	Letters look more separated and clear.
Arial-pic.JPG	More common? Does not cause strangement?
Arial-pic.JPG	more comfortable and faster to read, for me
Arial-pic.JPG	it is simpler, clearer and easier to read
Arial-pic.JPG	More legible, easy to read. I'm used to it.
Arial-pic.JPG	I didn't really have preference for either font
Arial-pic.JPG	the other one was too distracting for me
Arial-pic.JPG	It's easier to read on the creen.
Arial-pic.JPG	it was easier to read
Arial-pic.JPG	It's easier to read.
Arial-pic.JPG	Less distracting. I am used to sans serif.
Arial-pic.JPG	It's more legible, although I don't like Arial.
Arial-pic.JPG	Instinct
Arial-pic.JPG	It goes better with the movie.
Arial-pic.JPG	Easier to read and less intrusive on the screen.
Arial-pic.JPG	More used to
Arial-pic.JPG	Easier to read

Discussion & Limitations

➢ Oral dialogue in English

➢ Duration of the clips

➢ Same clip played twice

➢ Fixed not randomized order

Conclusion & Future work

Testing different fonts for children programmes

Testing different fonts for accessibility

Testing different fonts for Easy-to-Read subtitles

References list

Cintas J, Remael A. (2021) Subtitling Concepts and Practices, Routlledge.

Orero, Pilar, Stephen Doherty, Jan Louis Kruger, Anna Matamala, Jan Pedersen, Elisa Perego, Pablo Romero-Fresco, Sara Rovira-Esteva, Olga Soler-Vilageliu, and Agnieszka Szarkowska. 2018. "Conducting Experimental Research in Audiovisual Translation (AVT): A Position Paper." *Journal of Specialised Translation* 30 (30): 105–26.

Pedersen, J. (2018). From old tricks to Netflix: How local areinterlingual subtitling norms forstreamed television? Journal ofAudiovisual Translation, 1(1), 81-100.