Conférence scientifique du CRIR-Institut Nazareth et Louis-Braille

Media Accessibility in Japan: Current Practices, Challenges, and Implications for Rehabilitation

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Media accessibility

- Audio description, also called described video
- Captions
- Accessible cinema
- Accessible streaming
- Theatre



✓ In Japan, films and video were long seen as “later”

✓ A lower priority than other daily activities

Figure: Palabra Inc. (translated by the author, used with permission)

The path to availability

- Funding
- Commission
- Describe or Write captions
- Check
- Release

All of these happen before a user ever encounters accessibility

Media in everyday Japanese life

- ✓ On a weekday, people in Japan spend more than five hours on TV and the internet

Source: MIC (2025), FY2024 survey on media use (in Japanese)

A large, growing industry

- ✓ Content exports: 5.8 trillion yen (2023)
- ✓ About 3 times more than 10 years ago
- ✓ Japan released 676 films in 2023: 3rd in the world
- ✓ Box office in 2025: a record high

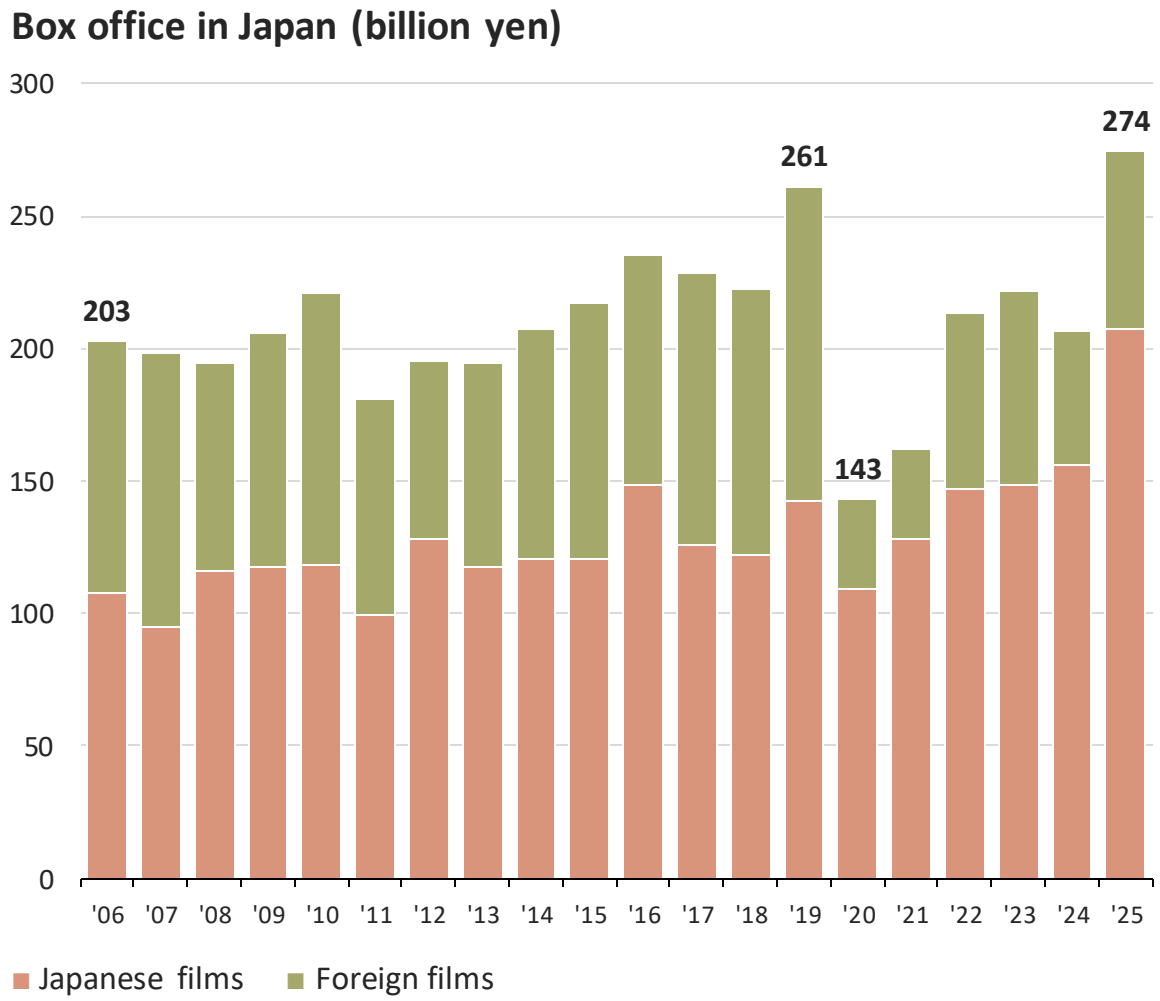


Chart: data from Eiren (2026, in Japanese), redrawn by the author. Text: WIPO (2025); METI (2025, in Japanese)

Understanding accessibility needs

Focus on:

- ✓ Film and cinema
- ✓ Audio description

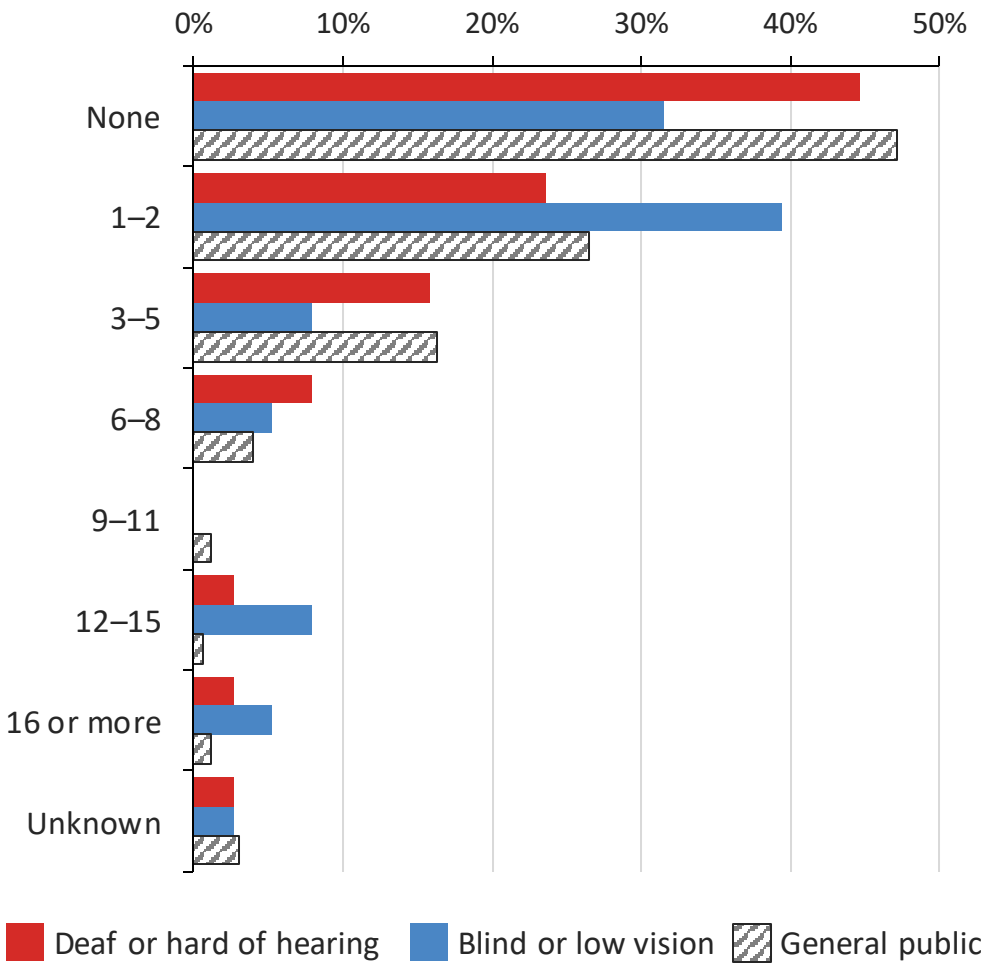
Who are we talking about?

- In Japan, 273,000 people hold a disability certificate for visual impairment (2022)
- 1.64 million have low vision or blindness, with or without a certificate (2007 estimate)
- About 9,300 deafblind people hold certificates for both vision and hearing (2024); about 1,000 use interpreter-guide services
- We count what is produced, not who keeps using it
- No regular national count of participation

Sources: MHLW (2024) Survey on difficulties in daily life, 2022; Japan Ophthalmologists Association (2009); MHLW / PwC Consulting (2025) Survey on deafblind people

Who goes to the cinema?

Cinema visits in the past year (2014)



	Went to a cinema[1]	Japanese films[2]	Foreign films[2]
Deaf or hard of hearing[3]	55.3	**25.3**	74.7
Blind or low vision[3]	68.4	71.3[4]	**28.7[4]**
General public[5]	52.8	58.3	41.7

% · [1] at least once in the past year [2] share of films seen
[3] n = 38 [4] n = 21 [5] ACR 2013 (n = 2,625); Eiren 2014

Deaf or hard of hearing people chose mostly foreign films, with subtitles

Blind or low-vision people went to the cinema, but chose fewer foreign films

Nakajima et al., ICCHP 2014; METI-funded survey 2014. General public: Video Research ACR 2013; Eiren 2014

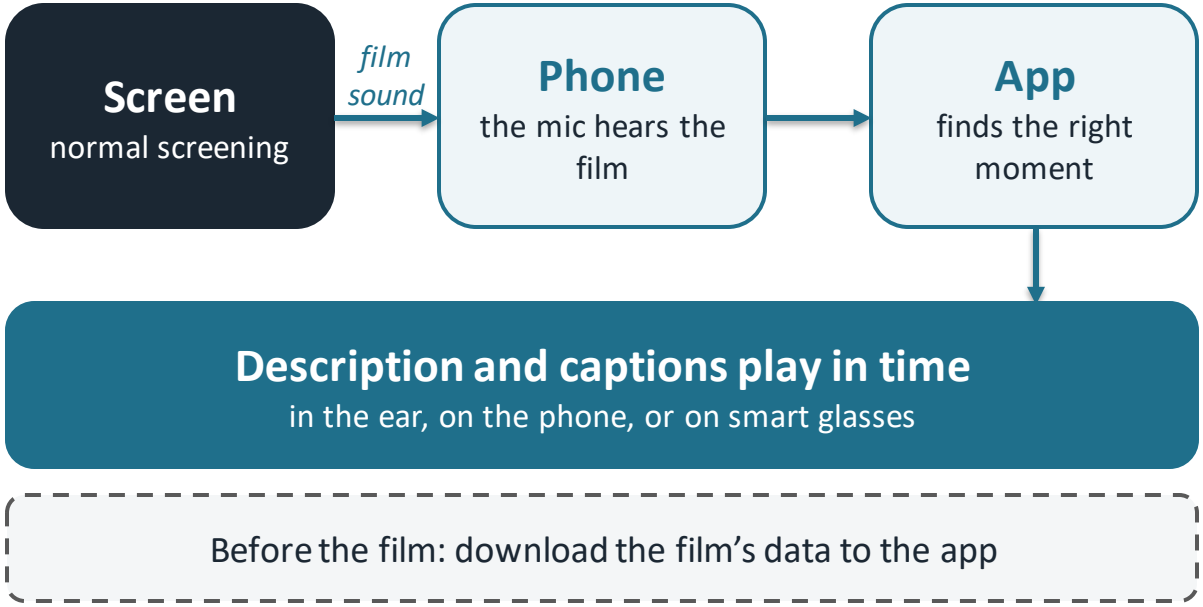
Building accessible cinema in Japan



- **Advocacy, helped by data, changed the law**
  - A) Act for Eliminating Discrimination against Persons with Disabilities (2013; in force 2016; duty for businesses from 2024)
  - B) Act on the Promotion of Cultural and Artistic Activities by Persons with Disabilities (2018)
- **The laws moved the major studios**

Access on your own phone

- ✓ The apps play description and captions on the user's own phone by following the film's sound to stay in time
- ✓ No special equipment needed in the cinema







Nous ne pouvons pas afficher l'image.

Diagram: redrawn by the author, based on UDCast (Palabra Inc.). Figure: UDCast (Palabra Inc.), translated by the author, used with permission
Sources: UDCast (Palabra Inc.), https://udcast.net/ ; HELLO! MOVIE (Evixar Inc.), https://hellomovie.info/

The cost of access

Cost per two-hour film (approx.)

- Captions:

  JPY 0.6–0.7 million (approx. CAD 5,400–6,300)
- Audio description (AD):

  JPY 1.0–1.2 million (approx. CAD 9,000–11,000)
- App delivery:

  JPY 0.3 million (approx. CAD 2,700)

Source: Siglo Co., Ltd. (2026, in Japanese)

The technology works — cost is the barrier, especially for description

Who made it decides access
Focus: audio description

59%	15%	1%
Big studios	Other Japanese films	Foreign films

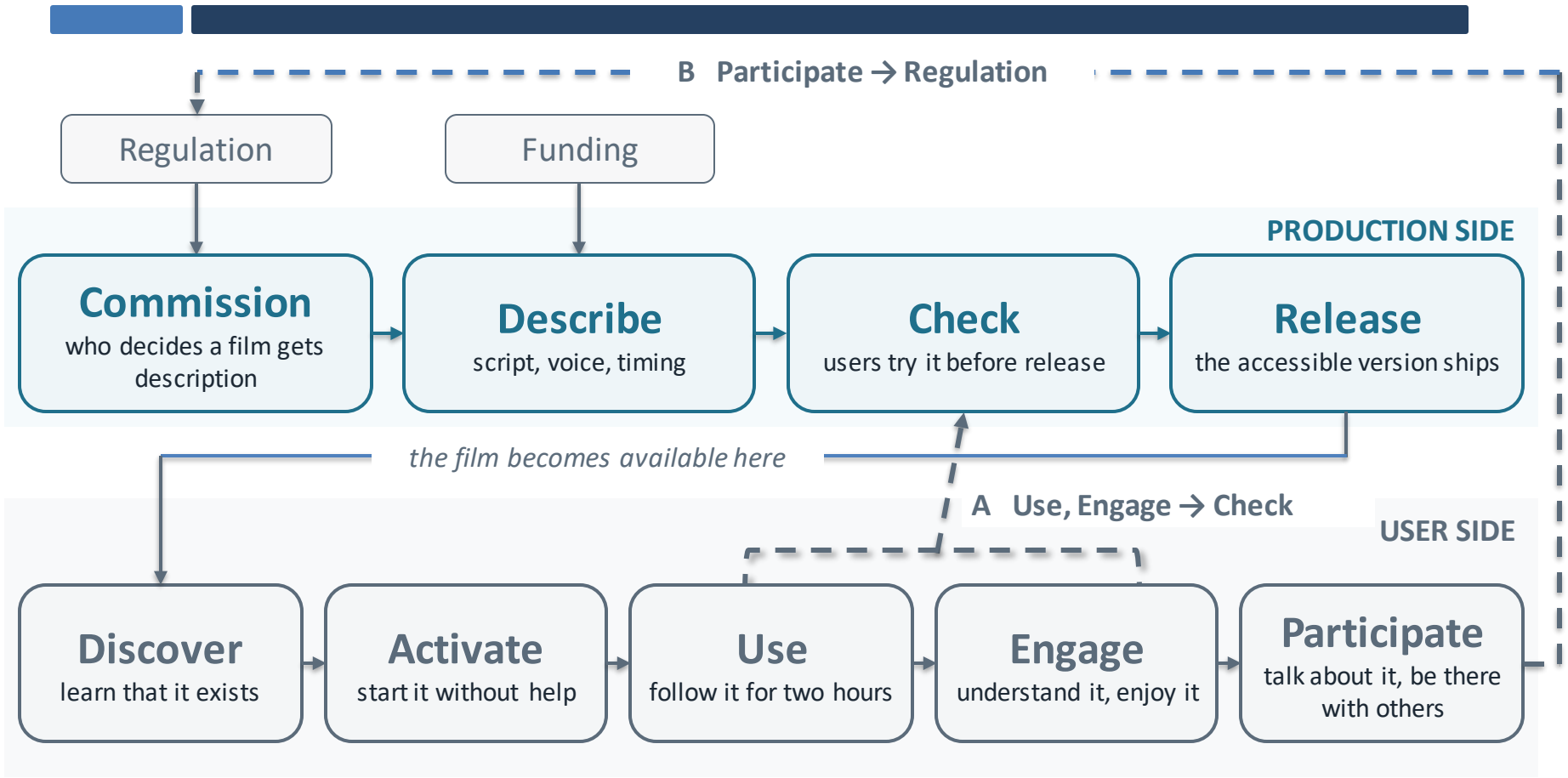
Audio description, Japan, 2023 (foreign films: description or captions). Source: Japanese Film Project (2025)

- Big studios can pay; small producers often cannot
- Foreign films rarely have it
- People can see the hits, but cannot choose freely
- **Choosing what to watch is part of participation**

Connecting production and participation

- ✓ Access is made on one side and used on the other

A shared map with two halves



Two arrows, A and B, should come back, but they are often weak or missing

Working across different worlds

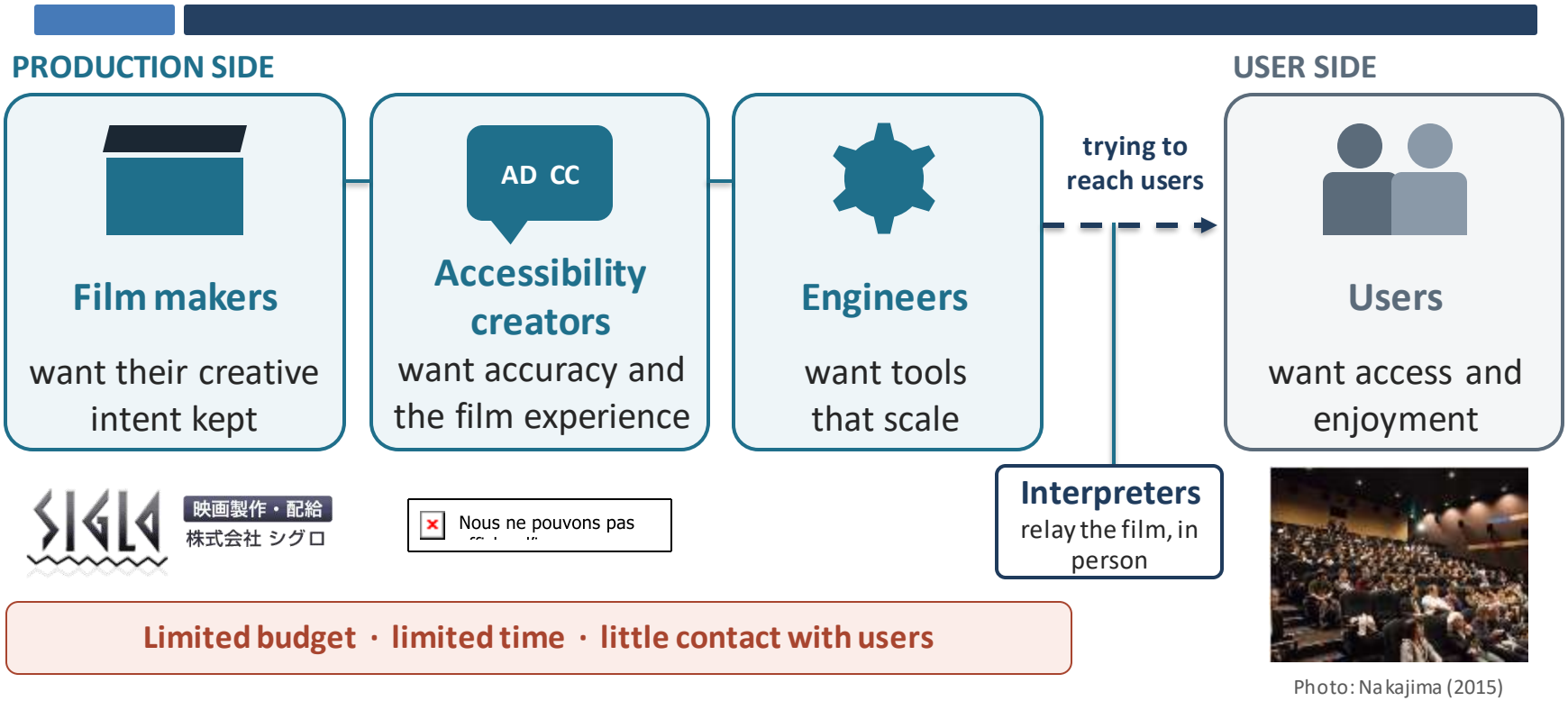
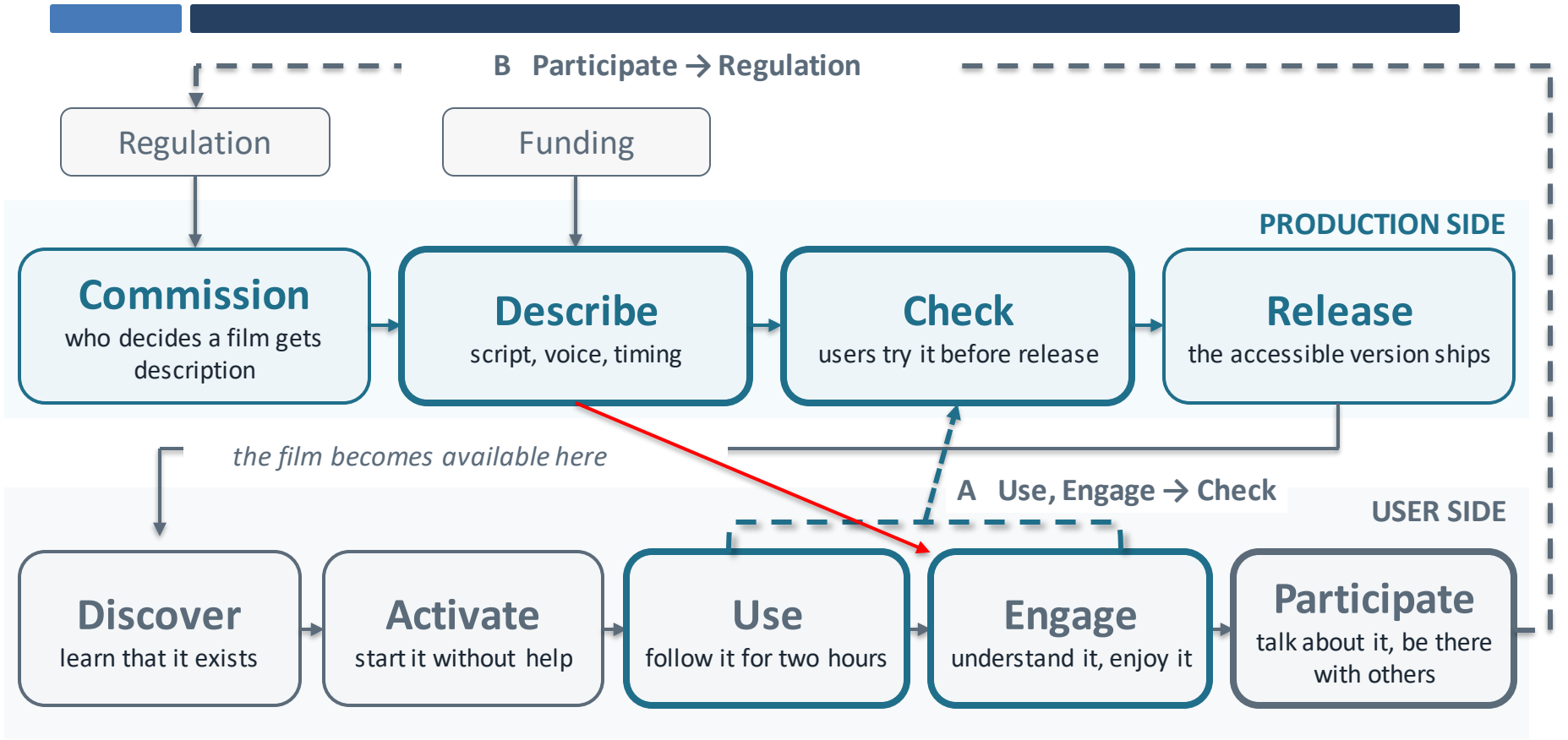


Photo: Nakajima (2015)

- Users, creators, film makers, engineers, interpreters
- Different groups, different priorities
- Production works with little budget, time and contact with users
- Yet they are trying to reach users

Where our work sits

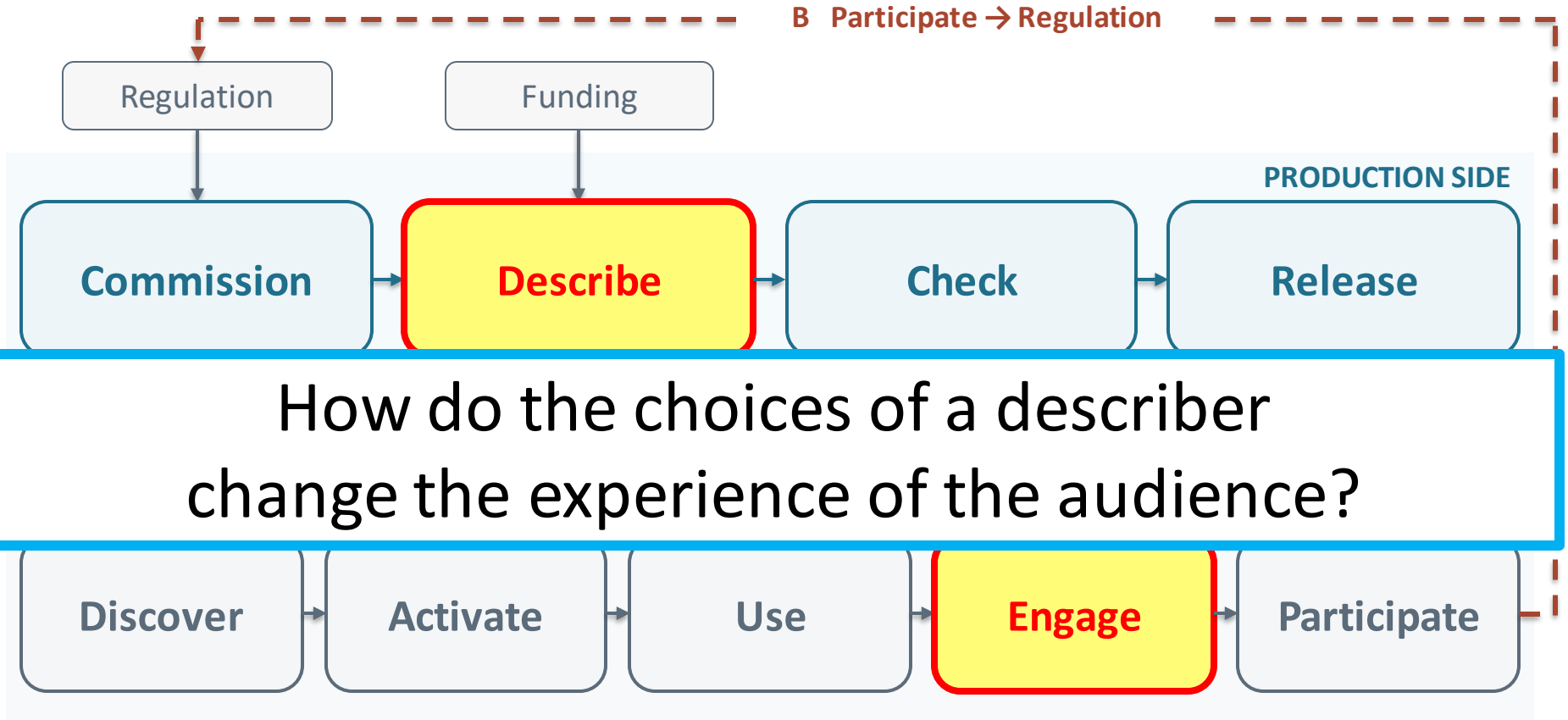


Case 1: How describers choose (Describe → Engage)

Case 2: A voice tool users adjust (Use, Engage → Check)

Case 3: A screening for deafblind people (Engage → Participate)

Case 1:
Describe → Engage



dashed = weak or missing today

How description is made





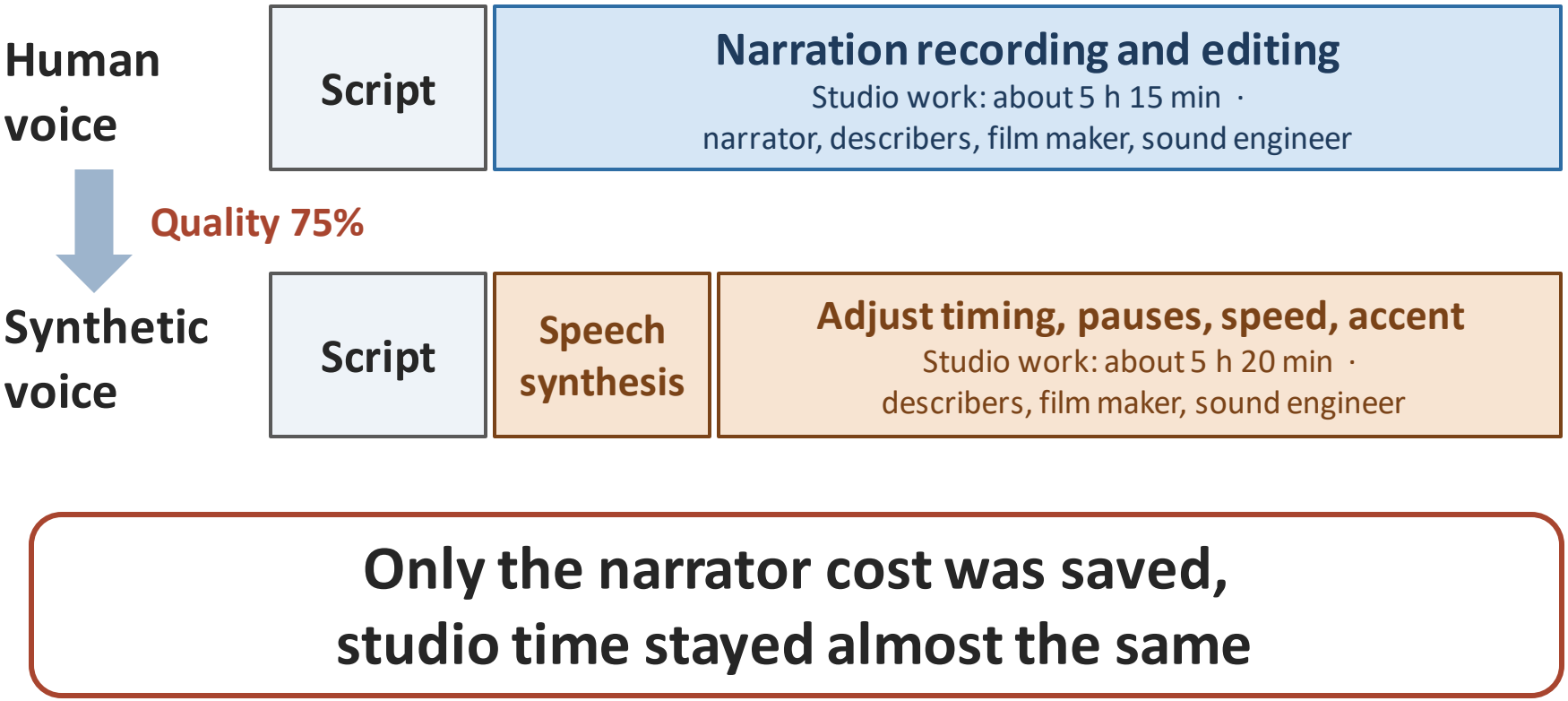
Blind and
low-vision people
Deafblind people

Production flow

Script writing → **Narration recording** → **Sound editing**

High production cost → **Idea: synthetic speech**

Synthetic speech: results



Only the narrator cost was saved,
studio time stayed almost the same

S. Nakajima, K. Mitobe. Universal Access in the Information Society, 21, 405–418 (2022)

Our AD editing tool with synthetic speech



Film: Dolphin Blue (dir. Tetsu Maeda, produced by Dolphin Blue Production Committee, 2007).
Figure: Nakajima & Mitobe (2022), Fig. 1

Main window

	B	C	D	E	F	G
1	イン点	音声ガイド	話速 (0.00~4.00) デフォルト1.00	音量 (0.00~2.00) デフォルト0.50	タイミング合わせ位置 (イン点・アウト点)	備考
2						
3	00:00:03:14	水の中	1	0.5	イン点	
4	00:00:06:14	イルカが飛び上がる	0.8	1.2	イン点	
5	00:00:09:05	ドルフィンブルー	1.5	0.7	イン点	
6	00:00:12:04	イルカが泳ぐ	0.9	0.9	イン点	

Script window

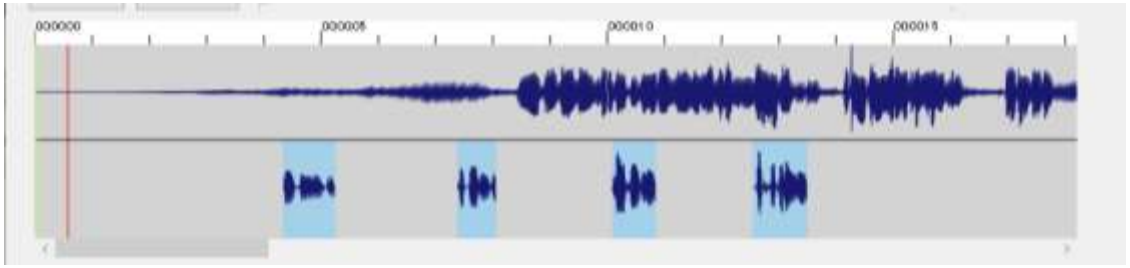


Top: film sound Bottom: description

See the film sound and the description together
Place description anywhere; set speed and volume

S. Nakajima, K. Mitobe. Universal Access in the Information Society, 21(2), 405–418 (2022). doi:10.1007/s10209-022-00873-z

How professionals shape sound



Top: film sound
Bottom: description

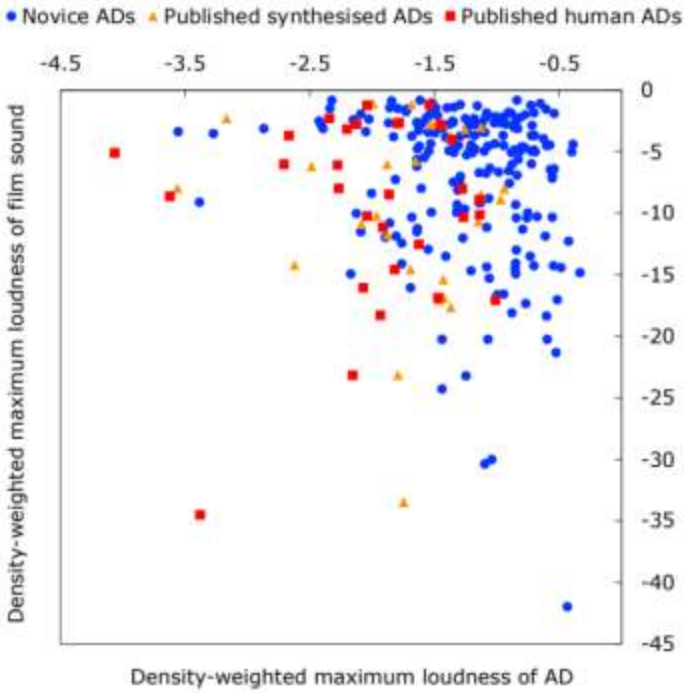
Novice quality (professional = 100%)

62%	64%
overall	volume

The professional kept description audible without raising the volume

S. Nakajima, K. Mitobe. The Journal of Specialised Translation, 42, 64–83 (2024)

Loudness



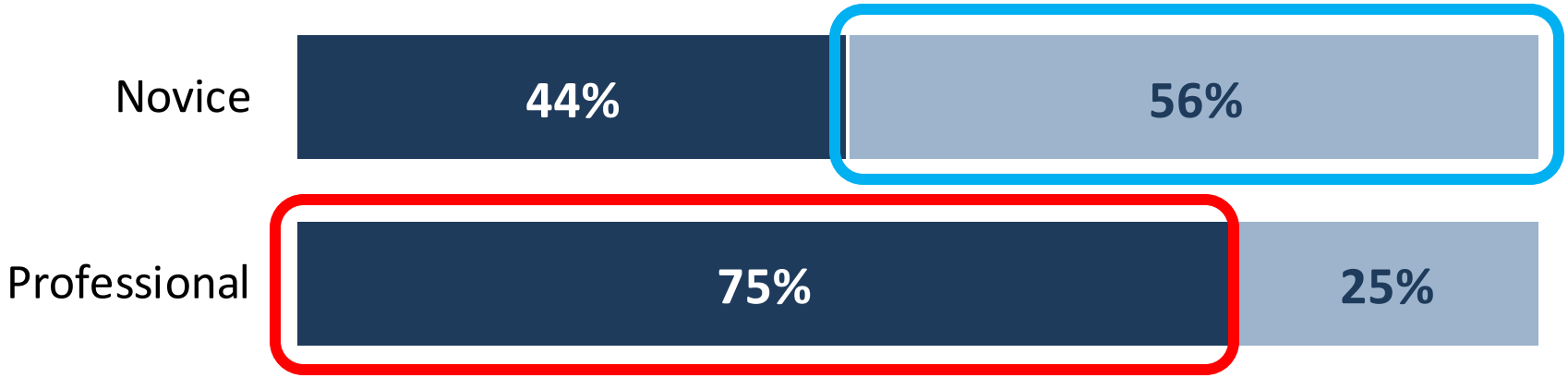
AD louder →

Blue: novice Red, orange: professional

Expert timing strategies

What tells the describer when to speak?

- Sound: dialogue, ambient sound
- Picture: movement, text, scene and cut changes



Professional follow the sound
They create a “flow of sound”

S. Nakajima, K. Mitobe. The Journal of Specialised Translation, 42, 64–83 (2024)

Next: learning from experts

Many people with visual disabilities
already hear synthetic speech every day



Goal: lower cost, without losing presence

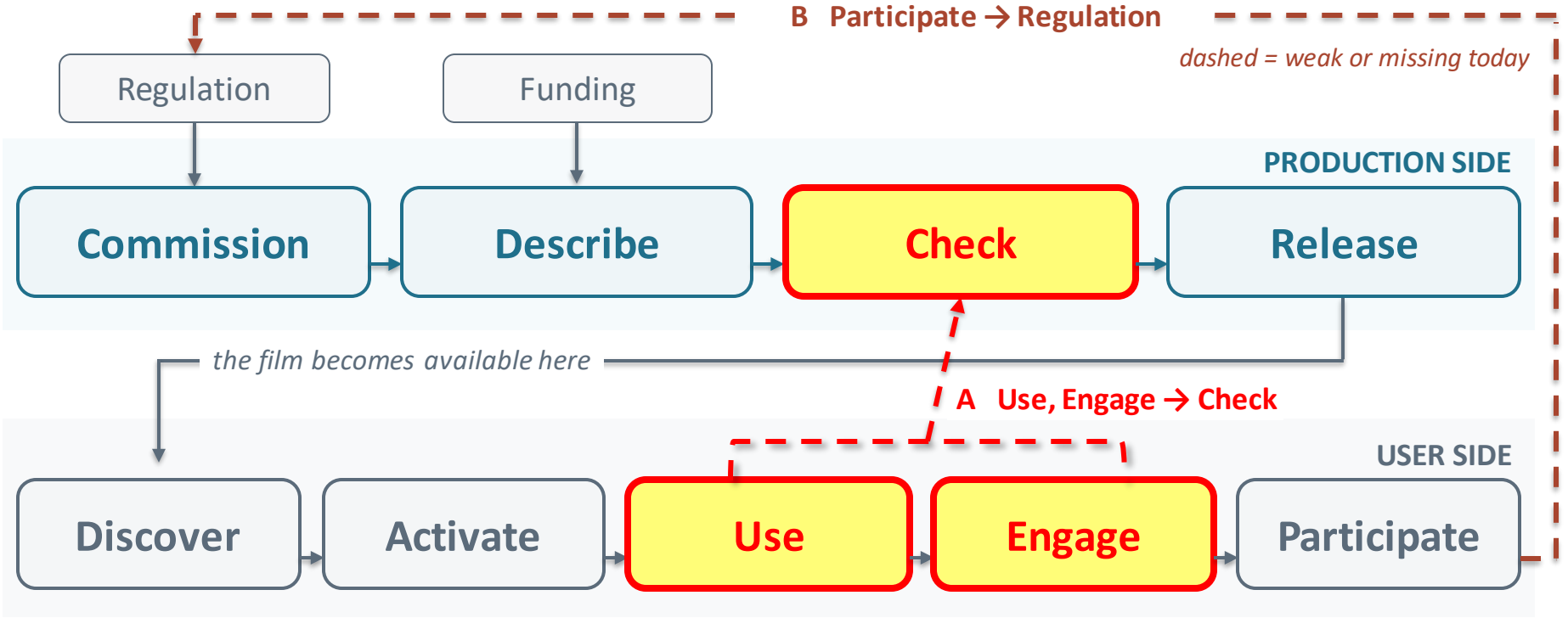
Same film, different experience

- Making films available comes first
- But the same film can feel very different
- Small choices change presence:
  timing, volume, silence
- **Presence may change participation:**
  talking about the film, going again

What this means for clients

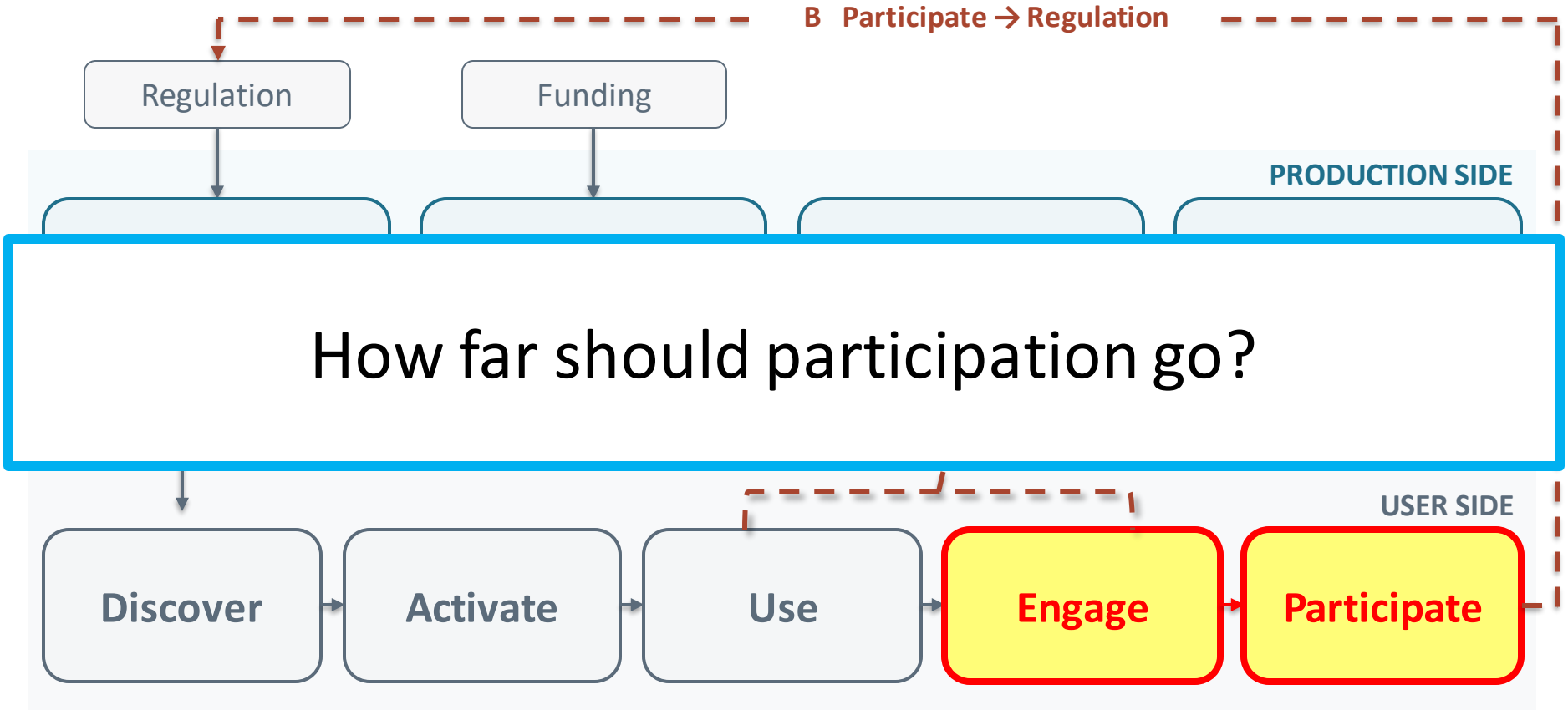
- Many of your clients already use these listening skills
- “Too much talking” may be about the description, not the person
- Try another film before giving up
- **Ask what made a film feel real**

Case 2:
Use, Engage → Check



- Adjust AD speech rate with the keyboard and audio feedback
- Adjust AD prosody with the user's own voice

Case 3:
Engage → Participate



dashed = weak or missing today

Two traditions, one audience

- Film access grew in two separate lines
- Description for vision, captions for hearing
  - Different people made them, for different audiences.
  - They almost never met.
- A deafblind audience needs both, at once
- We combined them, with the production team

Case 3: Engage → Participate

An accessible screening for deafblind people

The screening, 2015

- Three cities: Kagoshima, Otsu, Tokyo
- 30 deafblind people came; 26 joined the study
- Two films: a feature and a documentary





Photos: Barrier-free Film Research Association (2016)

How we adapted the screening

- A 20-minute break every 30 minutes
- Seats chosen for each person's vision and hearing
- Sound and lighting adjusted
- One version with both captions and description
- Scripts sent before: print, large print, braille
- Watching through interpreters
  - Finger braille
  - Tactile sign language
  - Sign language at close range



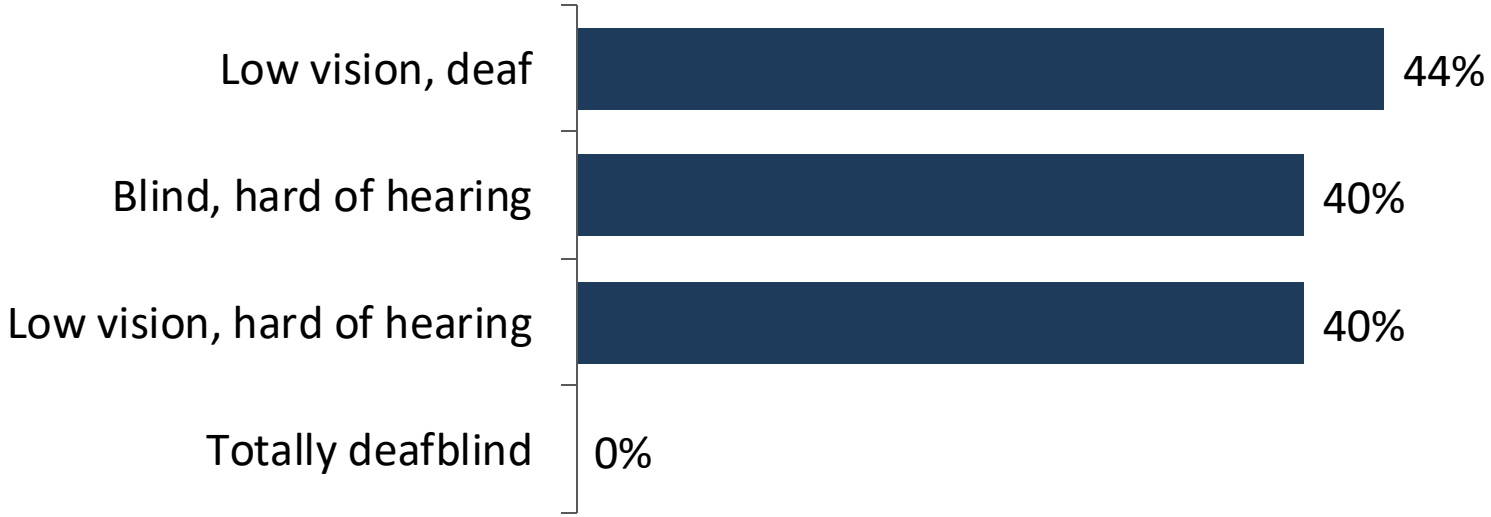
Photo: Barrier-free Film Research Association (2016)

What we found

65%
watched through interpreters

3.7 / 5
positivity of comments (1–5)

Comments about sharing the experience with others



S. Nakajima et al. Journal of Advanced Computational Intelligence and Intelligent Informatics, 21(2), 350–358 (2017)

Combining is not adding

- Interpreting was very hard for most interpreters
- **Taking in**: picture, dialogue, sound, captions, description
  - The description helped them choose
  - But some were unsure: what they saw, or what the description said?
- **Passing on**: through touch there is little time, finger braille needs short and simple description
- How far can touch mark where each piece comes from?

Two supports in one channel may compete
Each person needed a different fit

What happened next

- **At the time**
  - Deafblind people: “I was tired” “I did not understand it”
  - Interpreters: “Maybe it only showed them the gap again”
- **The next year**
  - Deafblind people:
    “Is there no screening this year?”
  - Most of them had found it hard
  - This work also led to a documentary film about deafblind people

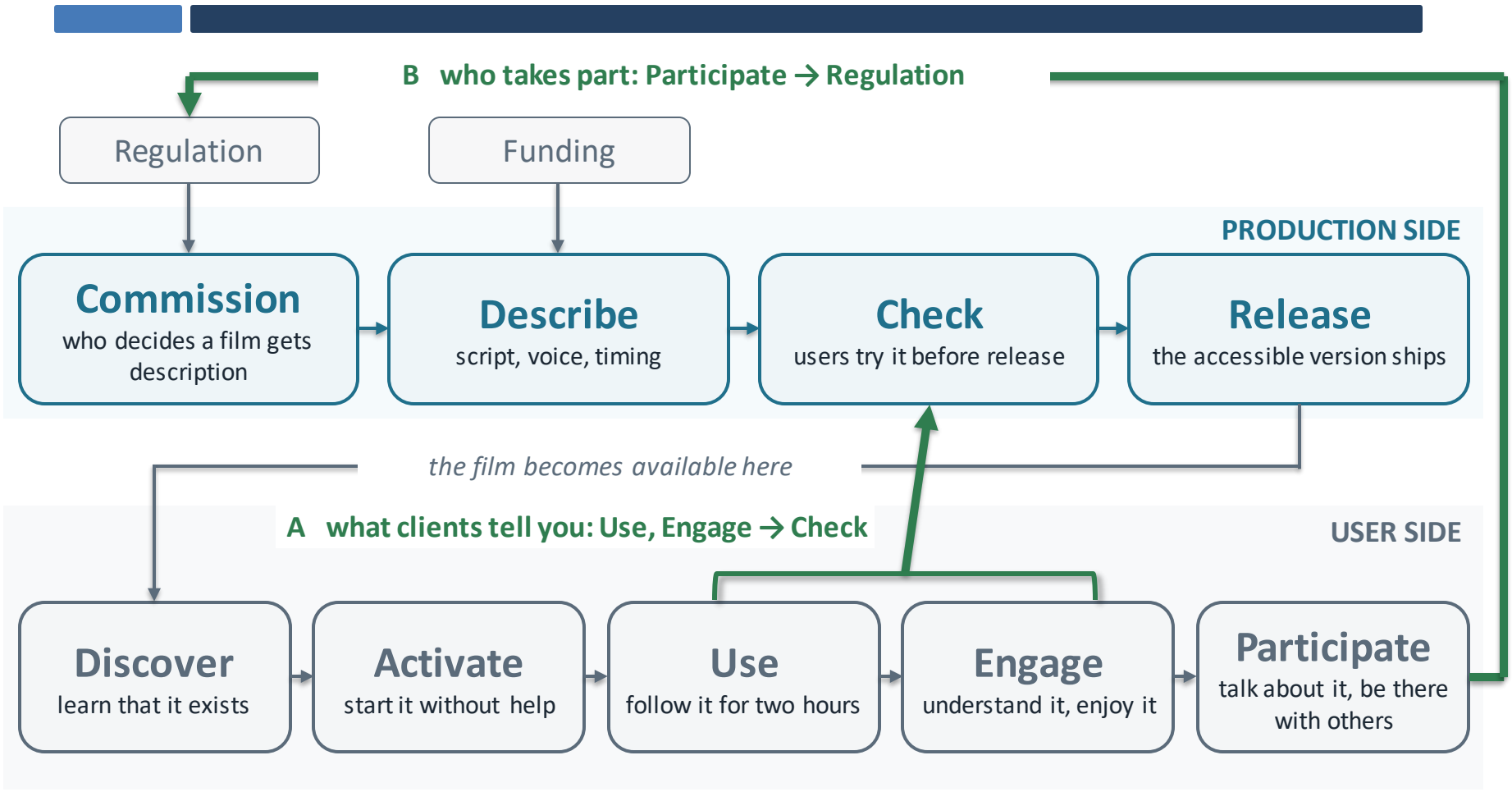


Toward the film “Living with Deafblindness”
2017, 91 min, dir. Takashi Nishihara

Being there matters

- Understanding was partial, but people came back
- The value was also in being there, with others
- Access is the film, and also the event around it
- **Participation may start before access is complete**

Closing the loop together



Film makers do not see users every day

You do

What can we do?

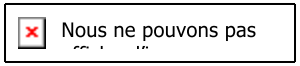
- Ask: “What did you watch this week?”
- **Tech training:** set up description on their phone or TV
- **Social participation:** a screening as a goal
- **Orientation and mobility:** plan the trip and the seat
- Note when and why people stop

One thing to remember

- ✓ **People cannot ask for what they have never had**
- ✓ Our work is to make asking possible
- ✓ Rehabilitation can connect the people who make access and the people who use it
- ✓ **Where would your work sit on the map?**

Thank you so much for your attention!









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