

Taking stock of AVT in the post-pandemic world: Where do we go from here?

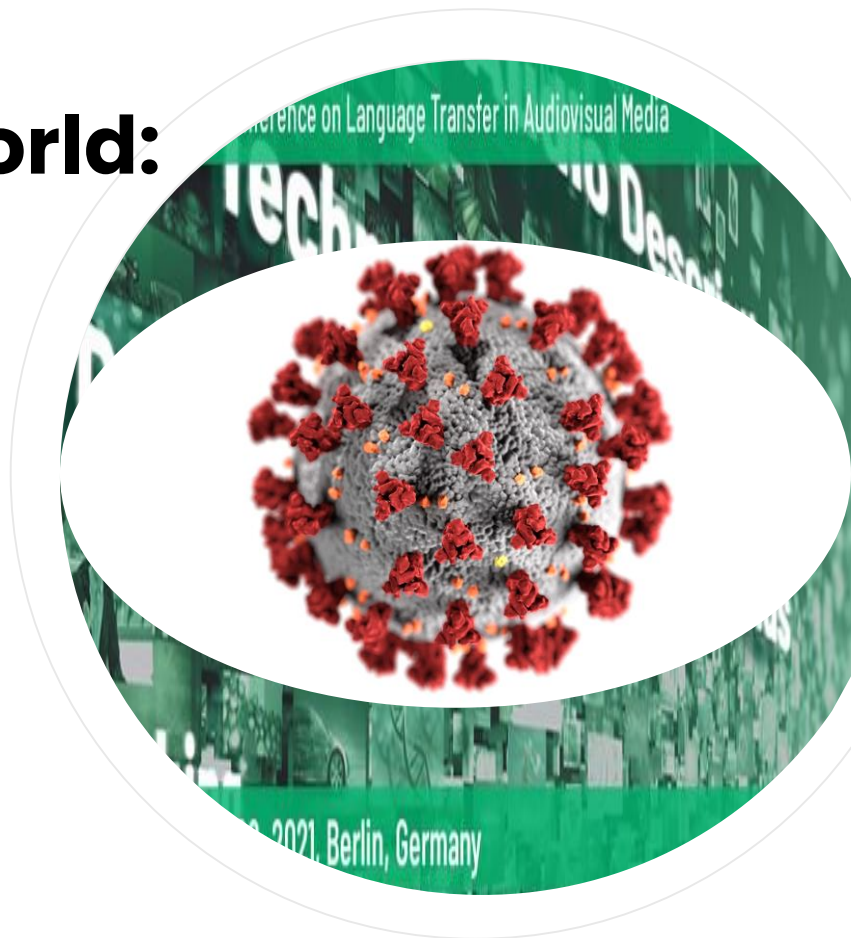
Agnieszka Szarkowska

University of Warsaw

& AVT Masterclass

a.szarkowska@uw.edu.pl

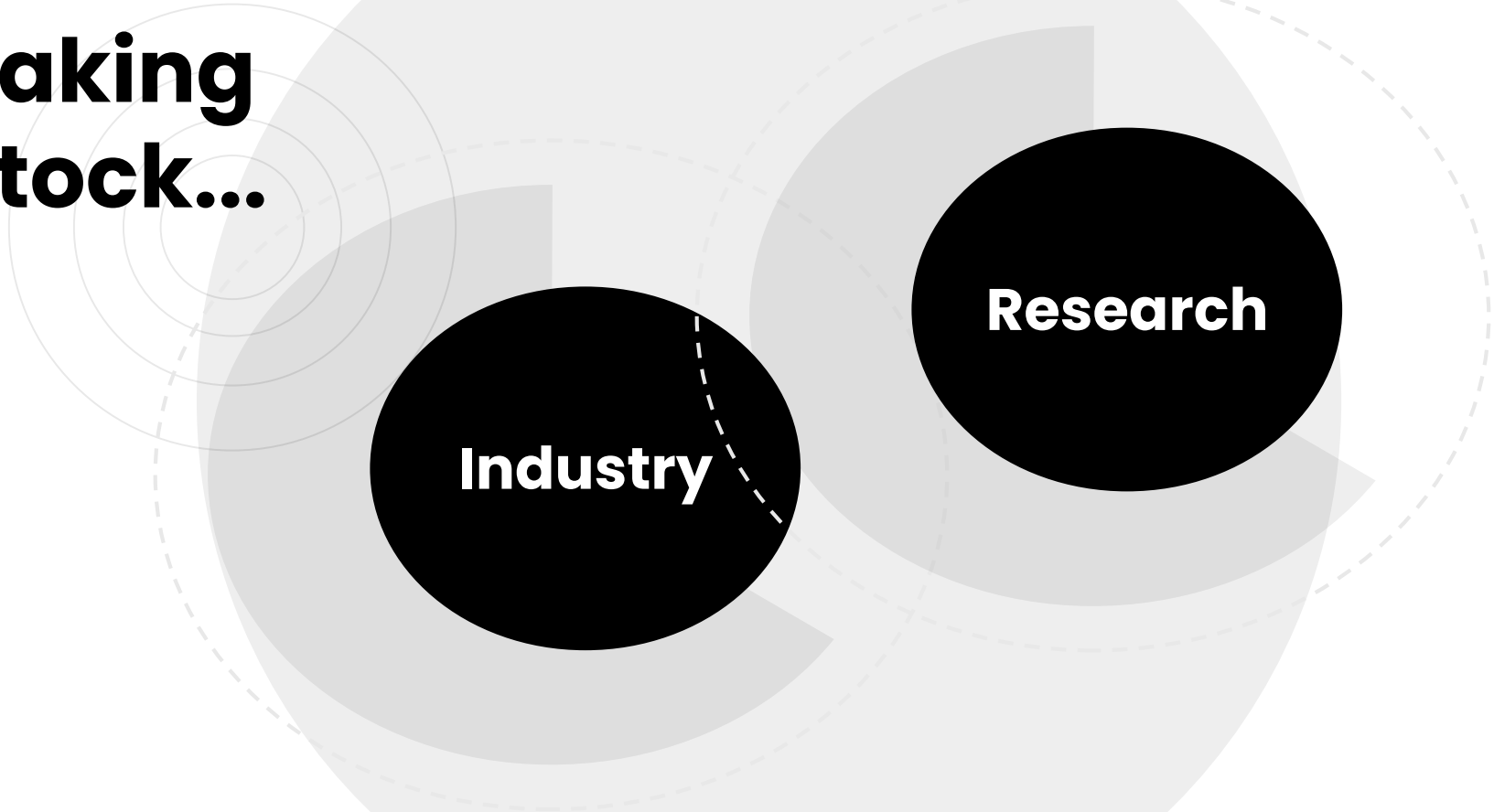
@ASzarkowska



**Taking
stock...**

Industry

Research



WORLD

THE WORLD IS
TEMPORARILY CLOSED

Shift to online media consumption

Weekly time spent with streaming video in Q2 2020 was **142.5 billion** minutes, an increase of nearly **75%** from the 81.7 billion minutes during Q2 2019

By June 2020, **48% of US adults** had subscribed to at least one streaming service.



Industry



Industry

Remote workflows

Working from home

Automation

Automating workflows

Continued growth

Localization industry

AI dubbing

Harnessing AI for dubbing

Streaming wars

Big players launching their platforms

Non-English content

Appetite for non-English shows is on the rise.



Remote workflows

- Working from home or going back to the office
- AVT method
 - Subtitling
 - Dubbing and voice-over



A woman with short brown hair is wearing large black headphones and singing into a silver RØDE condenser microphone. The microphone is mounted on a black boom arm and has a black circular pop filter with the RØDE logo in front of it. She is sitting at a desk in a home studio. In the background, there is a computer monitor displaying a digital audio workstation (DAW) interface with various tracks and waveforms. To the left, a bookshelf is filled with books. To the right, there is a white mug with a pen holder containing pens and scissors, and a small vase with pink flowers. The scene is lit with soft, natural light, and the overall atmosphere is professional and focused.

RECORDING FROM HOME

\$ 26,200,000,000

Translation and localization industry
is set to grow up to 10% in **2021**



NETFLIX

apple tv+



hulu

**STREAMING
WARS**



discovery+



Paramount+

Slator Language Industry Job Index (LIJI)

September 2021

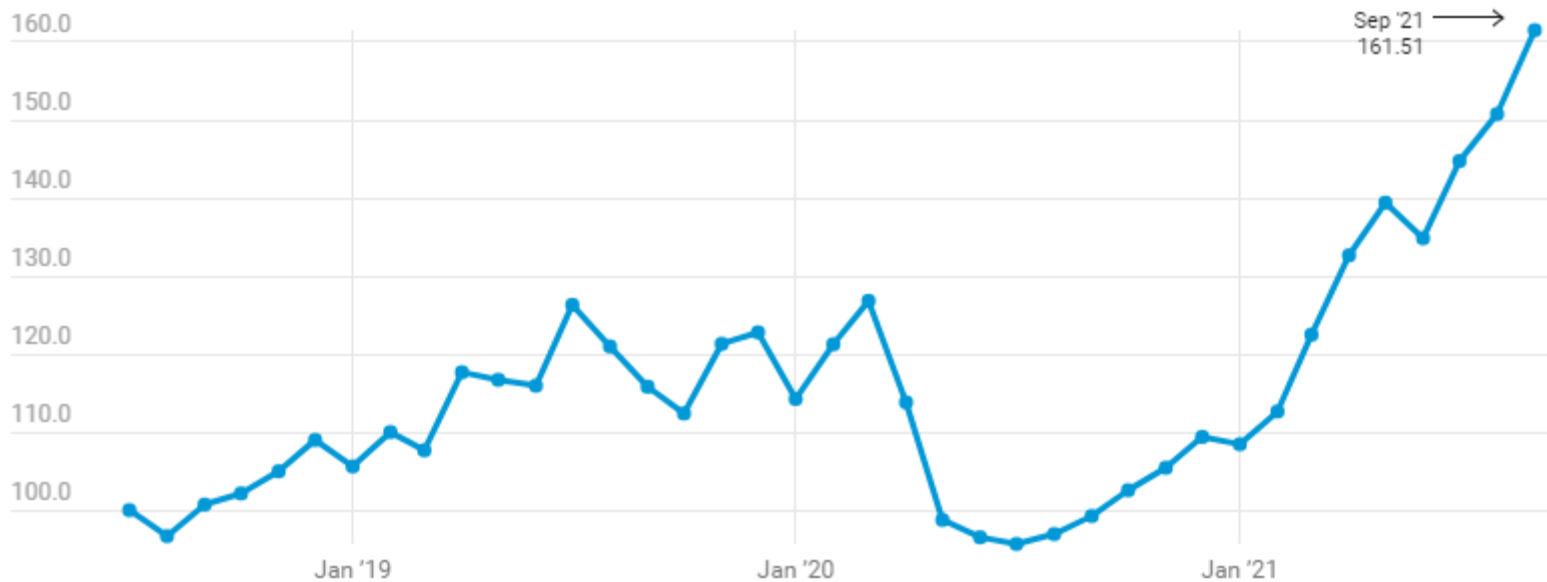


Chart: Slator • Source: Slator • [Get the data](#) • Created with [Datawrapper](#)

Initiatives to gather talent and combat talent crunch



THE POOL



EGA Localization Talent Database

We're often asked by our members to help them find great talent for their projects. In an effort to streamline this, we're building a database that will help our members connect with you. This is a free registration for our database and your information will only be shared with our members.



AVT Pro Certification?

Establish accreditation
for AVT professionals



Automation

Text-to-speech

Synthetic voice-over

Speech-to-speech

Remote interpreting

Automatic spotting

Subtitling and transcription



AI dubbing

- Harnessing AI to synthesise speech and video for dubbing

Are viewers able to tell the difference between human and AI dubbing?



Which clip was made with AI dubbing?

Human
or AI dubbing?

Clip 1

TrueSync
made by
Flawless

www.flawlessai.com

Impact of AI dubbing on AVT

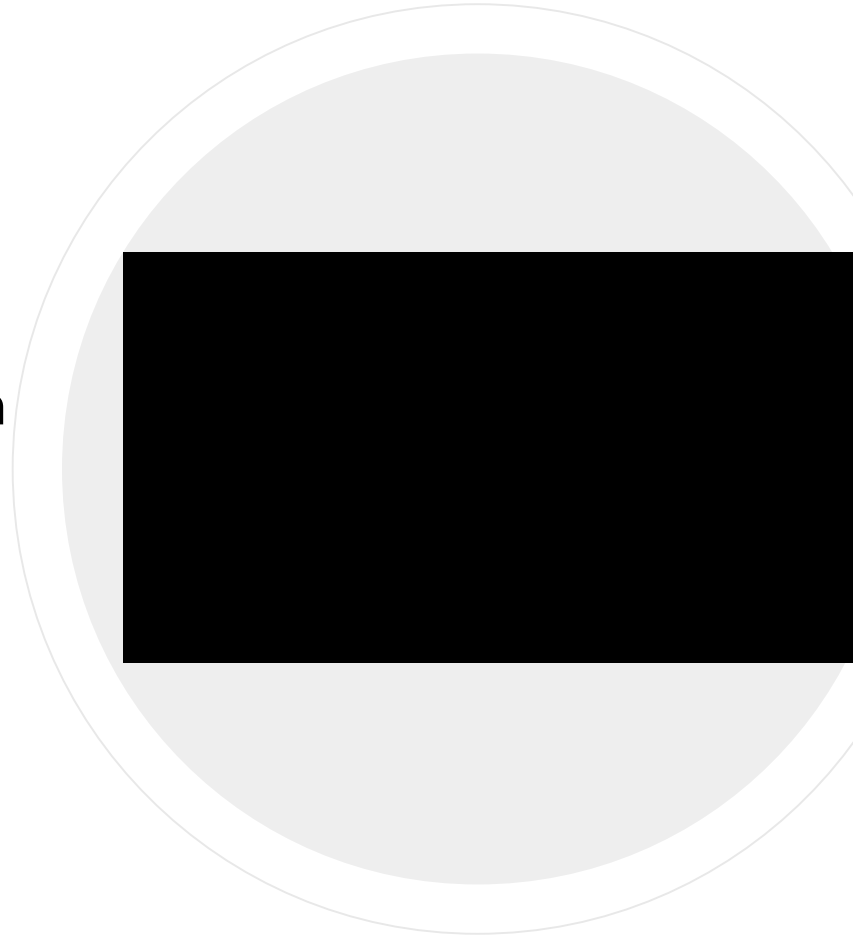
- (When) will it take over?
- Dialogue writers & adapters
- Dubbing actors
- Dubbing teachers
- Dubbing researchers

Is AVT community going to miss the boat?

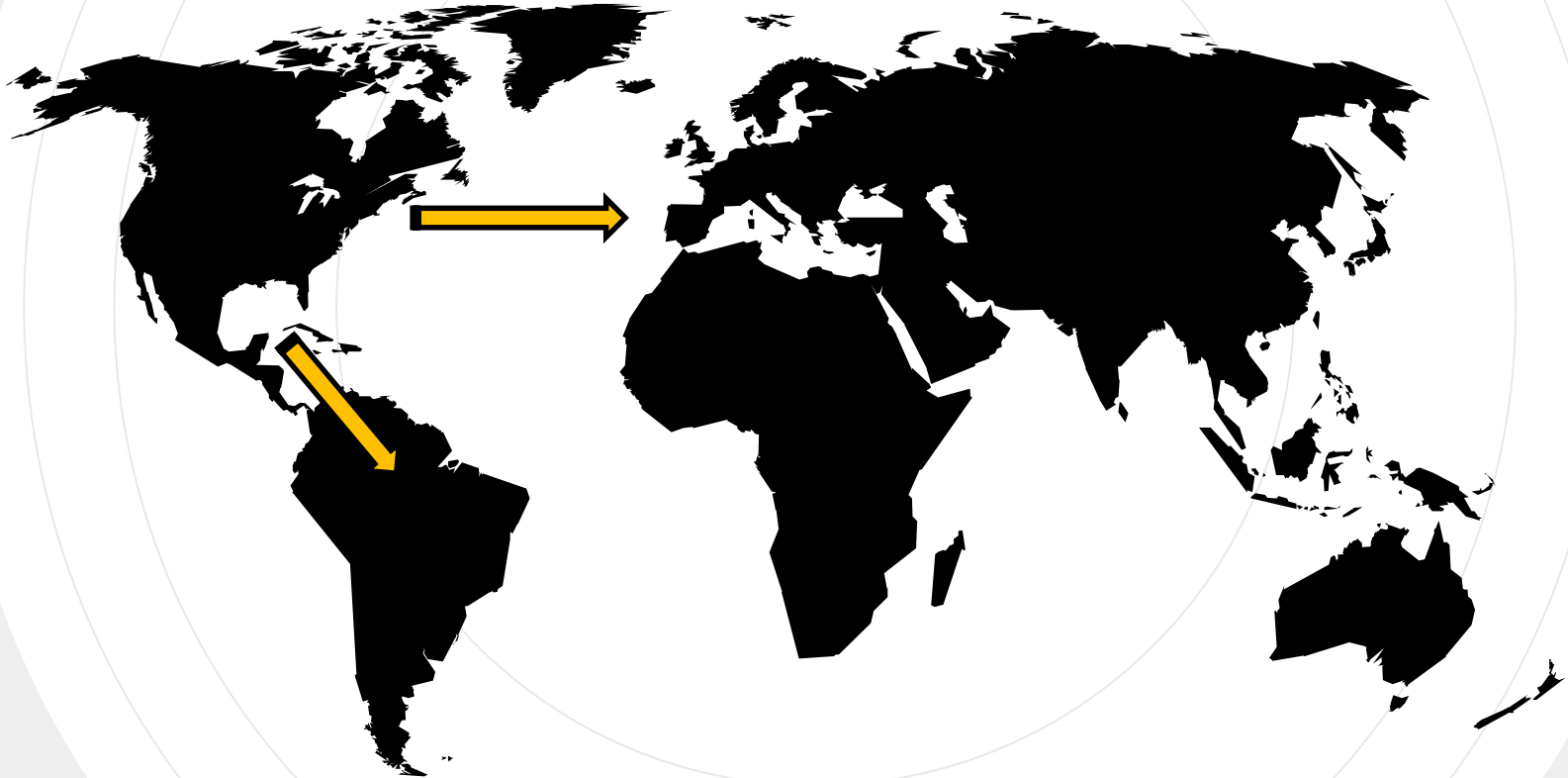


Ethical issues

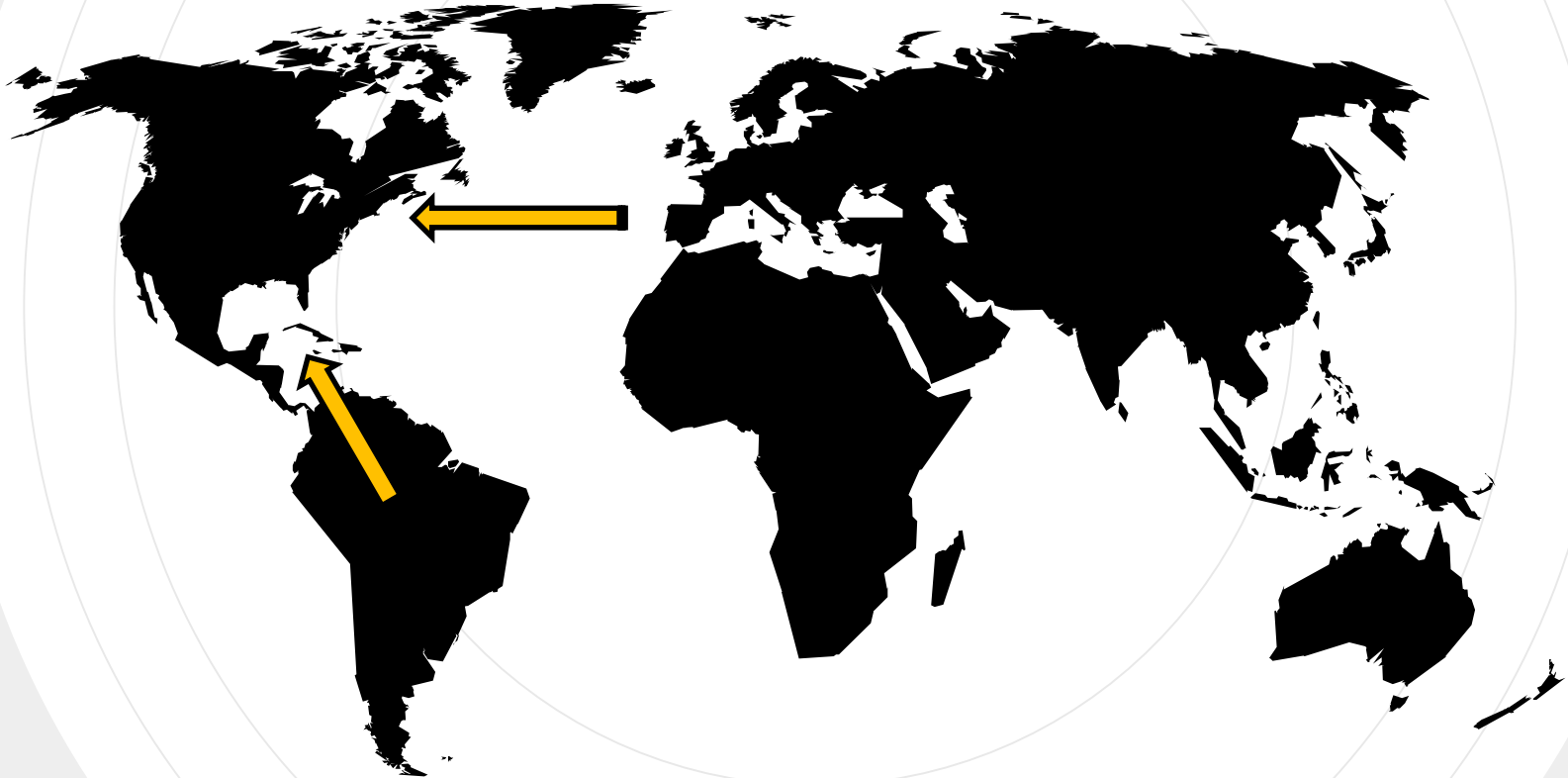
- Fake news & misinformation
- Deepfakes



Rise of **non-English** content



Rise of **non-English** content



Netflix's Drama 'Dark' May Be From Germany, but 90% of Its Viewers Are Not

By Janko Roettgers ▾



Non-English content

- Growth of English dubbing
- Pivot English templates in subtitling
- Other language combinations without English as pivot





Once you overcome the 1-inch tall barrier of subtitles, you will be introduced to so many more amazing films.

2020

OSCARS

NOMINACJE

NAJLEPSZY
MONTAŻ

NAJLEPSZY
REŻYSER

NAJLEPSZY
FILM

NAJLEPSZA
SCENOGRAFIA

NAJLEPSZY
FILM MIĘDZYNARODOWY

NAJLEPSZY
SCENARIUSZ ORYGINALNY



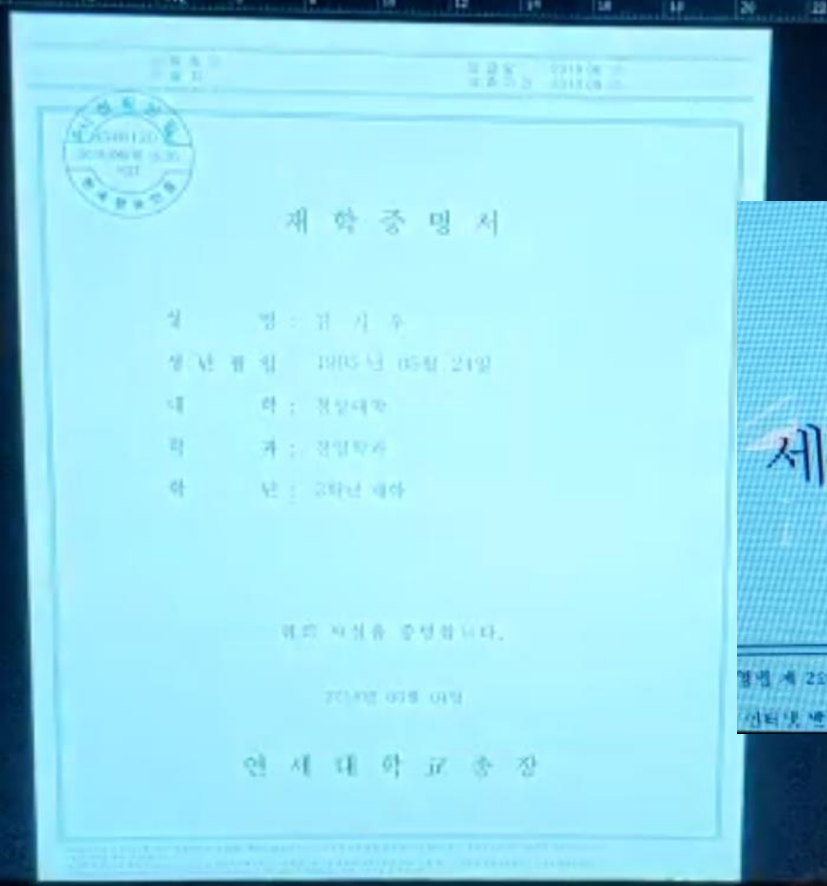
PARASITE

FILM BONG JOON HO



CANNES 2019
ZŁOTA PALMA

DVD
VIDEO



A man with dark hair, wearing a grey sweater, is looking intently at a white document he is holding. He is in a cluttered room, possibly a kitchen or a small office, with various items on shelves and a television in the background. The lighting is somewhat dim, and the overall atmosphere is one of concentration or concern.

Does Seoul National University
have a major in document forgery?



서울대학교
SEOUL NATIONAL UNIVERSITY



Wow, does Oxford have a major
in document forgery?

Caray. ¿En Oxford habrá una carrera
de falsificación de documentos?

English translator explains why he changed SNU to Oxford

Was there a reason you went with Oxford rather than Harvard?

- I think Bong likes England a lot. [...] When I was a high school student, I applied to Harvard and didn't get in. Jokes aside, I think Harvard is too obvious a choice. It's more memorable when you say Oxford.



<https://www.korea.net/NewsFocus/Culture/view?articleId=171974>

Domestication and hegemony of Anglo-American culture

- Translating to minimize foreignness
- “An ethnocentric reduction of the foreign text to target-language cultural values”

Lawrence Venuti (1995)
*The Translator's Invisibility:
A history of translation*

**Cultural
appropriation
in 2021?**

English pivot templates are prone to cultural appropriation



Change
subtitling
guidelines
to promote
diversity

Research



Research

Importance of research

For society

Open science

Make results available

Quality

of research

Myths

What do we really know vs. what we think we know?

Replication

New studies needed

Non-English content

Indirect translation



Importance of research in COVID times

Save lives

Developing drugs
to treat COVID-19

Inform public policy

Policies based on
research evidence



Social distancing





Which mask can better protect you from COVID?

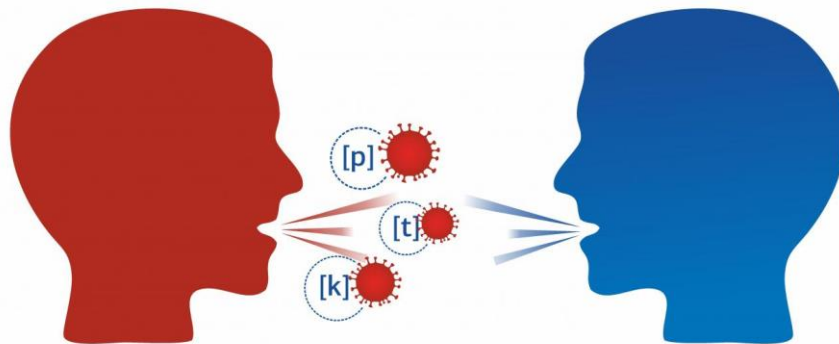


BRIEF REPORT

How the language we speak determines the transmission of COVID-19

ASPIRATION

NO ASPIRATION



Vaccines

- Anti-vaxxers
- Vaccine hesitancy
- Vaccine politics





Public trust in research

Research failures...

Cherry-picking results

Choosing only what fits your hypothesis

Predatory publishing

Hijacking academic journals

Data fabrication

Need for transparency and open data

Poor quality

Badly designed studies rendering meaningless results

Researcher bias

Proving what you want to prove

Plagiarism

Unauthorised copying

BAD RESEARCH

Retraction Watch



Andrew Wakefield
The Lancet

Early report

Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children

A J Wakefield, S H Murch, A Anthony, J Linnell, D M Casson, M Malik, M Berelowitz, A P Dhillon, M A Thomson, P Harvey, A Valentine, S E Davies, J A Walker-Smith

Summary

Background We investigated a consecutive series of children with chronic enterocolitis and regressive developmental disorder.

Methods 12 children (mean age 6 years [range 3–10], 11 boys) were referred to a paediatric gastroenterology unit with a history of normal development followed by loss of acquired skills, including language, together with diarrhoea and abdominal pain. Children underwent gastroenterological, neurological, and developmental assessment and review of developmental records. Ileocolonoscopy and biopsy sampling, magnetic-resonance imaging (MRI), electroencephalography (EEG), and lumbar puncture were done under sedation. Biochemical, haematological, and immunological profiles were examined.

Findings Onset of behavioural symptoms was associated by the parents, with measles, mumps, and rubella vaccination in eight of the 12 children, with measles infection in one child, and otitis media in another. All 12 children had intestinal abnormalities ranging from lymphoid nodular hyperplasia to granuloid ulceration. Histology showed patchy chronic inflammation in 11 of 11 children and reactive ileal lymphoid hyperplasia in seven, but no granulomas. Behavioural disorders included autism (nine), disintegrative psychosis (one), and possible postviral or vaccinal encephalitis (two). There were no focal neurological abnormalities and normal EEG tests were normal. Abnormal laboratory results were significantly raised urinary methylmalonic acid compared with age-matched controls ($p=0.03$), low haemoglobin in four children, and low serum IgA in four children.

Interpretation We identify associated gastrointestinal disease and developmental regression in a group of previously normal children, which was generally associated in time with possible environmental triggers.

Lancet 1998; **351**: 637–41

See Commentary page

Introduction

We saw several children who, after a period of apparent normality, lost acquired skills, including communication. They all had gastrointestinal symptoms, including abdominal pain, diarrhoea, and vomiting and, in some cases, food intolerance. We describe the clinical findings, and gastrointestinal features of these children.

Patients and methods

12 children, consecutively referred to the department of paediatric gastroenterology with a history of a pervasive developmental disorder with loss of acquired skills and intestinal symptoms (including abdominal pain, bloating and food intolerance), were investigated. All children were admitted to the ward for 1 week, accompanied by their parents.

Clinical investigations

We took histories including details of immunisations and exposure to infectious diseases, and assessed the children. In 11 cases the history was obtained by the senior clinician (JW-S). Neurological and psychiatric assessments were done by consultant staff (PH, MB) with HMS-4 criteria.¹ Developmental assessments included a review of prospective developmental records from parents, health visitors, and general practitioners. Four children did not undergo psychiatric assessment in hospital; all had been assessed professionally elsewhere, so these assessments were used as the basis for their behavioural diagnosis.

After bowel preparation, ileocolonoscopy was performed by SHM or MAT under sedation with midazolam and pethidine. Paired frozen and formalin-fixed mucosal biopsy samples were taken from the terminal ileum; ascending, transverse, descending, and sigmoid colons, and from the rectum. The procedure was recorded by video or still images, and were compared with images of the previous seven consecutive paediatric colonoscopies (four normal colonoscopies and three on children with ulcerative colitis), in which the physician reported normal appearances in the terminal ileum. Barium follow-through radiography was possible in some cases.

Also under sedation, cerebral magnetic-resonance imaging (MRI), electroencephalography (EEG) including visual, brain stem auditory, and sensory evoked potentials (where compliance made these possible), and lumbar puncture were done.

Laboratory investigations

Thyroid function, serum long-chain fatty acids, and cerebrospinal-fluid lactate were measured to exclude known causes of childhood neurodegenerative disease. Urinary

Nobel winner retracts paper from Science



Frances Arnold
@francesarnold



It is painful to admit, but important to do so. I apologize to all. I was a bit busy when this was submitted, and did not do my job well. [twitter.-com/francesarnold/...](https://twitter.com/francesarnold/)

Frances Arnold @francesarnold

For my first work-related tweet of 2020, I am totally bummed to announce that we have retracted last year's paper on enzymatic synthesis of beta-lactams. The work has not been reproducible. science.sciencemag.org/content/364/64 ...

4,051 7:02 PM - Jan 2, 2020



659 people are talking about this



The paper has been cited once, according to Clarivate Analytics' Web of Science.

Open Science Collaboration

Replication crisis

Open access, freely available online

Essay

Why Most Published Research Findings Are False

John P. A. Ioannidis

Summary

There is increasing concern that most current published research findings are false. The probability that a research claim is true may depend on study power and bias, the number of other studies on the same question, and, importantly, the ratio of true to no relationships among the relationships probed in each scientific field. In this framework, a research finding

factors that influence this problem and some corollaries thereof.

Modeling the Framework for False Positive Findings

Several methodologists have pointed out [9–11] that the high rate of nonreplication (lack of confirmation) of research discoveries is a consequence of the convenient, yet ill-founded strategy of claiming

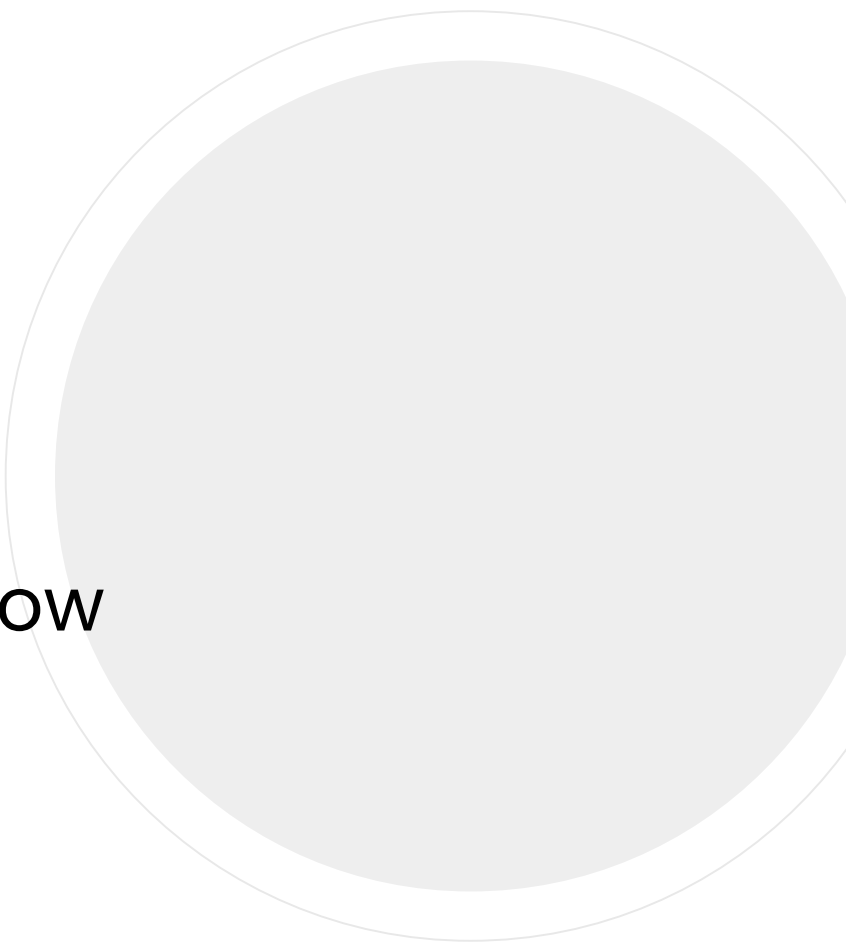
is characteristic of the field and can vary a lot depending on whether the field targets highly likely relationships or searches for only one or a few true relationships among thousands and millions of hypotheses that may be postulated. Let us also consider, for computational simplicity, circumscribed fields where either there is only one true relationship (among many that can be hypothesized) or the power is similar to find any of the

Out of 100 studies replicated

Only 36% had significant results



Revisit...

- what we know
vs.
what we think we know
- 

JOURNAL ARTICLE

"Eskimo Words for Snow": A Case Study in the Genesis and Decay of an Anthropological Example

Laura Martin

American
Anthropologist
New Series, Vol. 88,
No. 2 (Jun., 1986), pp.
418-423 (6 pages)
Published By: Wiley



<https://www.jstor.org/stable/677570>

**The Eskimo
have hundreds
of words for snow?**



How about AVT?

Are there any myths?

What do we really know from research?

Is AVT research up to date?



Myth 1: AVT preferences?

PREFERRED MEDIA LOCALIZATION MODES AROUND THE WORLD



A decorative graphic on the left side of the slide. It consists of four concentric circles of varying shades of gray, centered around a bold black double slash symbol (//).

Myth 2

Audio description is a human right

Greco, G. M. (2016). On Accessibility as a human right, with an application to media accessibility. In A. Matamala & P. Orero Clavero (Eds.), *Researching Audio Description. New Approaches* (pp. 11-33). Palgrave Macmillan.

A decorative graphic on the left side of the slide. It consists of four concentric circles of varying shades of gray, centered around a bold black double slash symbol (//).

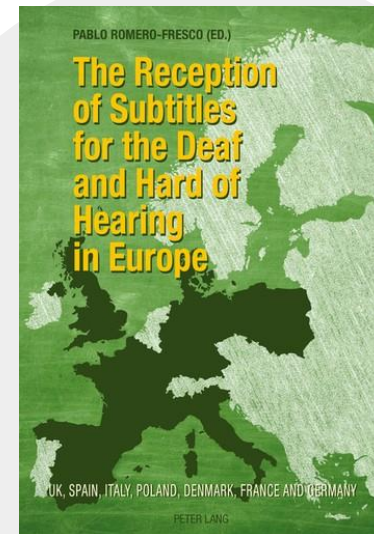
Myth 3

**If subtitles are displayed
at 200 wpm (16.5 cps),
viewers will spend 80%
reading them**

What's the source of this myth?

Table 1: Viewing speed and distribution of gaze between subtitles and images.

<i>Viewing speed</i>	<i>Time on subtitles</i>	<i>Time on images</i>
120wpm	±40%	±60%
150wpm	±50%	±50%
180wpm	±60%-70%	±40%-30%
200wpm	±80%	±20%



Problem 1

- Original study (2010)
 - Intralingual **SDH**
 - dubbing to *Shrek*
 - Polish to Polish, Spanish to Spanish, etc.
 - Deaf, hard of hearing & hearing viewers
 - No statistics reported, just trends
- Overgeneralising results beyond data





Problem 2: Impossibility of the formula

Subtitle reading depends on:

- Type of content
(*specialised documentary vs. children's film*)
- Types of words used in the subtitles
(*length, frequency*)
- Viewers' familiarity with subtitles,
reading ability and hearing status
- Visual elements, etc.



Let's recap

- It is true that some subtitles are too fast and viewers are unable to follow them
- It is true that the higher the speed of the subtitles, the more time viewers will spend looking at them
- **But is it true that:
16.5 cps → 80%?**


Table 1: Viewing speed and distribution of gaze between subtitles and images.

<i>Viewing speed</i>	<i>Time on subtitles</i>	<i>Time on images</i>
120wpm	$\pm 40\%$	$\pm 60\%$
150wpm	$\pm 50\%$	$\pm 50\%$
180wpm	$\pm 60\%-70\%$	$\pm 40\%-30\%$
200wpm	$\pm 80\%$	$\pm 20\%$

**A trend in this dataset,
not a universally applicable fact**



**So what's the best
reading speed?**



And how do we
know this?

How to calculate reading speed

- Researchers calculated the reading speed in their studies in different ways!

Fresno, N., & Sepielak, K. (2020).
Subtitling speed in Media
Accessibility research: some
methodological considerations.

Perspectives, 1-17.

<https://doi.org/10.1080/0907676X.2020.1761841>

SURE Project

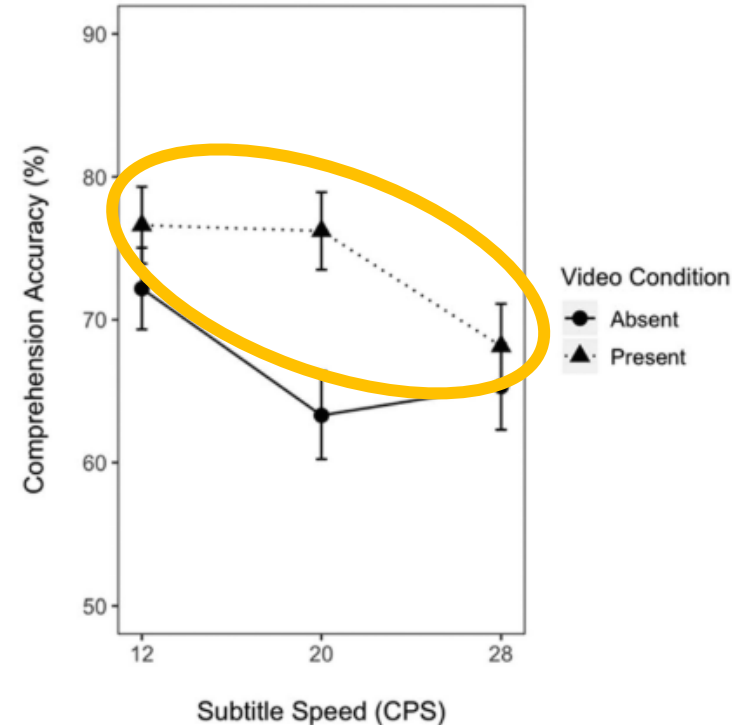
- Most viewers were able to follow subtitles and watch the images at the speed of **20 cps**
- Viewers preferred **lower speed** in the case of content in an **unfamiliar language**
- Viewers prefer **higher speed** in the case of content in **English**



Szarkowska, A., & Gerber-Morón, O. (2018). Viewers can keep up with fast subtitles: Evidence from eye movements. *PLoS ONE*, 13(6). <https://doi.org/10.1371/journal.pone.0199331>

Liao et al. study (2020)

- Subtitle comprehension drops when the speed is above 20 cps
- Viewers are more likely to skip words at the end of the lines at higher subtitle speeds



Liao, S., Yu, L., Reichle, E. D., & Kruger, J.-L. (2020). Using Eye Movements to Study the Reading of Subtitles in Video. *Scientific Studies of Reading*, 1-19. <https://doi.org/10.1080/10888438.2020.1823986>

So what's the best reading speed?

- Not higher than 20 cps
- Maximum, not optimum



 OPEN ACCESS  PEER-REVIEWED

RESEARCH ARTICLE

Viewers can keep up with fast subtitles: Evidence from eye movements

Agnieszka Szarkowska , Olivia Gerber-Morón

Published: June 19, 2018 • <https://doi.org/10.1371/journal.pone.0199331>

Article

Authors

Metrics

Comments

Media Coverage



Abstract

Abstract


71
Save

14
Citation

6,135
View

43
Share

View PDF

Download PDF 

Print

Share

From crude tools to powerful fine-grained analyses



COVID-19 pandemic

No experimental research
in (eyetracking) labs



Online eyetracking

RealEye

FEATURES

ONLINE VS. OFFLINE

FOR EDUCATION

RESOURCES ▾

PRICING

TRY FOR FREE

100% human-based and online

Webcam Eye-Tracking

with Mouse/Click-tracking, Facial Coding, Surveys;
Analysis Dashboard, Data Exports and Panelists
- [all under a single license!](#)

Try For Free

Launch Demo

GDPR-ready | No credit card required



Trusted by freelancers, small to big companies, students, and universities.




Wavemaker

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hotjar
AWARDS

NEURO CAMP
LATINAMERICA

NEURO
CONSULTING



**How can we make
AVT research better?**

Let's look at vaccine research first



Open access

The **NEW ENGLAND**
JOURNAL *of* **MEDICINE**

ESTABLISHED IN 1812

DECEMBER 31, 2020

VOL. 383 NO. 27

Safety and Efficacy of the BNT162b2 mRNA Covid-19 Vaccine

Fernando P. Polack, M.D., Stephen J. Thomas, M.D., Nicholas Kitchin, M.D., Judith Absalon, M.D., Alejandra Gurtman, M.D., Stephen Lockhart, D.M., John L. Perez, M.D., Gonzalo Pérez Marc, M.D., Edson D. Moreira, M.D., Cristiano Zerbini, M.D., Ruth Bailey, B.Sc., Kena A. Swanson, Ph.D., Satrajit Roychoudhury, Ph.D., Kenneth Koury, Ph.D., Ping Li, Ph.D., Warren V. Kalina, Ph.D., David Cooper, Ph.D., Robert W. Frencq, Jr., M.D., Laura L. Hammitt, M.D., Özlem Türeci, M.D., Haylene Nell, M.D., Axel Schaefer, M.D., Serhat Ünal, M.D., Dina B. Tresnan, D.V.M., Ph.D., Susan Mather, M.D., Philip R. Dormitzer, M.D., Ph.D., Uğur Şahin, M.D., Kathrin U. Jansen, Ph.D., and William C. Gruber, M.D., for the C4591001 Clinical Trial Group*

ABSTRACT

BACKGROUND

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection and the resulting coronavirus disease 2019 (Covid-19) have afflicted tens of millions of people in a worldwide pandemic. Safe and effective vaccines are needed urgently.

The authors' affiliations are listed in the Appendix. Address reprint requests to Dr. Absalon at Pfizer, 401 N. Middletown Rd., Pearl River, NY 10965, or at judith.absalon@pfizer.com

<https://www.nejm.org/doi/full/10.1056/nejmoa2034577>

A graphic consisting of four concentric circles of varying diameters, centered on the left side of the page. The word "Transparency" is written in a large, bold, black sans-serif font across the middle of these circles.

Transparency

Supplementary Material

[Research Summary](#)

[Protocol](#)

[Supplementary Appendix](#)

[Disclosure Forms](#)

[Data Sharing Statement](#)

RESEARCH SUMMARY

Safety and Efficacy of the BNT162b2 mRNA Covid-19 Vaccine

F.P. Polack, et al. DOI: 10.1056/NEJMoa2034577

Plain language summary

CLINICAL PROBLEM

Safe and effective vaccines to prevent severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection and Covid-19 are urgently needed. No vaccines that protect against betacoronaviruses are currently available, and mRNA-based vaccines have not been widely tested.

CLINICAL TRIAL

A randomized, double-blind study of an mRNA vaccine encoding the SARS-CoV-2 spike protein.

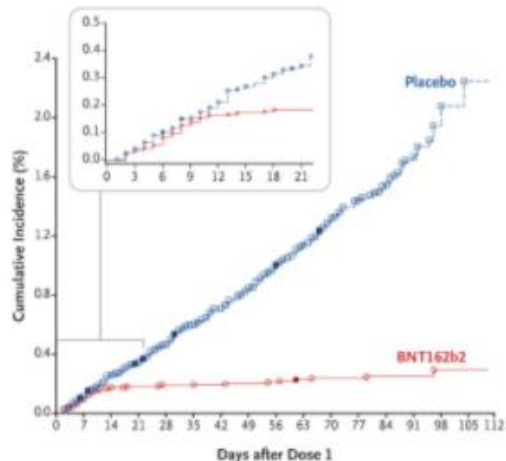
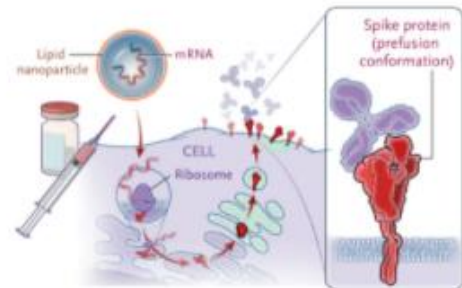
43,548 participants ≥ 16 years old were assigned to receive the vaccine or placebo by intramuscular injection on day 0 and day 21. Participants were followed for safety and for the development of symptomatic Covid-19 for a median of 2 months.

RESULTS**Safety:**

Vaccine recipients had local reactions (pain, erythema, swelling) and systemic reactions (e.g., fever, headache, myalgias) at higher rates than placebo recipients, with more reactions following the second dose. Most were mild to moderate and resolved rapidly.

Efficacy:

The vaccine showed protection 7 days after the second dose; 95% efficacy was observed.

LIMITATIONS AND REMAINING QUESTIONS

The background features a series of concentric circles in a light gray color, centered on the page. The circles vary in diameter, creating a sense of depth and focus on the central text.

Over 40,000

participants

How about AVT research?

Where are we
and where should we be going?

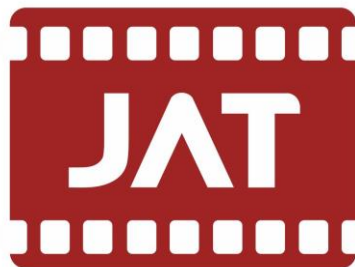
Publish open access

6-second rule study
and many AVT studies

- Hidden behind the paywall
- No data available
- Impossible to replicate



**Open
access
journals
publishing
AVT**



**Journal of
Audiovisual Translation**

JoSTrans 

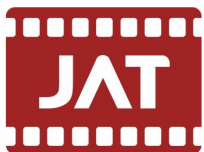
The Journal of Specialised Translation



LINGUISTICA ANTVERPIENSIA

NEW SERIES – THEMES IN TRANSLATION STUDIES

Plain language summary in JAT



**Journal of
Audiovisual Translation**

Lay summary

Audiovisual translation, or media translation such as subtitling and dubbing, has changed a great deal in recent years. Professionals involved in the creation of translations for television and film, which includes the ever-more popular platforms such as Netflix, are likely to have differing views on what the future holds for their industry, especially given the rising volume of translations made by machine translation systems which are then edited by human translators. We have conducted research among professionals involved in the audiovisual translation production process at a conference that takes place in Berlin every two years: *Languages and the Media*. This was an ideal place for such work since it attracts subtitlers, translators for dubbing, people who work in TV content translation, and trainers of media translators. We were hoping to discover the views of a wide range of people about what might happen in the short to medium term in the industry. The research was conducted in 2016 and 2018 among 160 professionals, such as subtitlers and employees of streaming platforms. The findings reveal some issues connected to translating for the media and point to the need for measuring translation quality and investing more resources into media translation training.

AVT researcher education

- Statistics
- Research designs
- Ethics
- Open science

LIFE-LONG LEARNING



Agenda for AVT research & academia

Replication

Let's replicate more studies

Open science

Share our data for transparency

Open access

Make our results accessible to all

Keep learning

Early career researchers & life-long learning

More diversity

More languages & countries

Socially relevant

Topics important for stakeholders



Agenda for AVT industry & academia

Research in partnership with the academia

What questions need
to be answered now?

Focus on quality

How to provide
the best viewing
experience

Guidelines and industry practices

should be based
on research evidence



Topics at Languages & the Media 2022?

Automation

Harnessing AI for tedious tasks

AVT education

Translators and researchers

Translation

Into English and without English

Quality

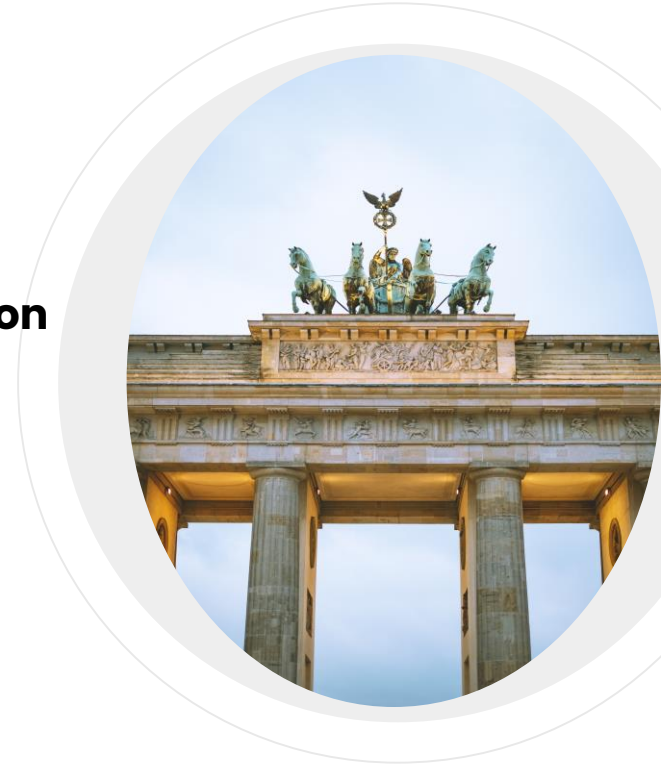
Prioritised over money

Professionalisation

Status, rates, rights

Certification

Showcasing professional skills



Languages & the Media 2021

13th International Conference on Language Transfer in Audiovisual Media

September 20 - 22, 2021

Berlin, Germany



AVT
Masterclass

Get in touch!

@ASzarkowska
a.szarkowska@uw.edu.pl

AVT Lab & AVT Masterclass