#### NewsReel2

2020-1-HU01-KA203-078824

# Journalism for voice-activated assistants and devices

A syllabus for Journalism and Media Studies programmes





#### 1. Data on the programme

1.1 Field of study	Journalism and Media Studies
1.2 Recommended level [Bachelor/ Masters]	Bachelor/Masters
1.3 Recommended study programme/ qualification	Mass Communication

#### 2. Data on the discipline

2.1 Name	Journalism for voice-activated assistants and devices
2.2 Recommended qualifications for the teacher [practitioner, theoretician, PhD holder in a certain field of study, etc.]	Theoretician; practitioner for seminars
2.3 Year of study [entry level/ advanced]	Advanced
2.4. Evaluation type [examination/ project/ portfolio/essay]	Project
2.5 Type of discipline [facultative, compulsory]	Facultative

# 3. Total time - estimated [hours per semester of student activity]

3.1 Number of hours per week	2	From which: 3.2 course [theory]	2 (7 weeks)	3.3 seminar [theory & practice]/laboratory [practice & laboratory]	2 (3 weeks)
3.4 Total number of hours  [3.1 X number of weeks; 12-14 weeks per semester]	20	From which: 3.5 course [theory]	14	3.6 seminar [theory & practice]/ laboratory [practice & laboratory]	6
Time distribution				Hours	
Individual study using a manual, course support, bibliography, notes from the course				80	
Documentation online and/ or on the field					
Preparing homework: individual or teamwork, portfolios, essays, etc.				40	

Tutoring	0
Examinations	0
Other activities	10
3.7 Total hour of individual study	130
3.8 Total hours per semester (3.4. + 3.7)	150
3.9 Number of ECTS	6

#### 4. Preconditions (if applicable)

#### [Who are the intended students]

(recommended previous courses)	No preconditions, but it is recommended for students that already completed some degree in journalism or communication fields
4.2 competences preconditions	

#### **5. Infrastructure needed (if applicable)**

5.1 for the course	Laptop, Projector, Screen, Audio System, Microphone, editing sound software, Internet access
5.2 for the seminar/laboratory	Laptop or other computer, Internet access

#### **6. Specific abilities**

#### [What do we want students to be able to do]

6.1. Professional competencies	Collaboration skills	
[job skills to be developed]	Innovation skills in the field	
	Problem solving skills	
	<ul> <li>Translate theoretical insights into journalistic practice and vice versa</li> <li>Skills to reflect and identify upon when is appropriate to deploy voice content production for voice-activated devices and assistants in a newsroom</li> </ul>	
	Being able to discuss appropriately the benefits and limitations of the journalistic content	

	production for voice-activated devices and assistants.	
6.2. Transversal competencies	Critical and innovative thinking	
[team work, critical thinking, global citizenship, etc.]	Media and Information literacy	
	Interpersonal skills	
	Intrapersonal skills	

#### 7. Discipline's objectives

#### [related to developing abilities & competencies]

7.1 General objective	This course is aimed at students who have interest in understanding the field of voice-activated and assistants, the production of journalistic content for these devices and the recent evolution of this area in the media, in general, and journalism, in particular. And it prepares students to have contact with innovative and new approaches in journalism.
7.2 Specific objectives  [Learning outcomes – observable, measurable]	Understand what voice-activated devices and assistants are and know their evolution throughout time
measurable	Know how voice-activated devices and assistants are being used in the media, especially in journalism and discuss future uses for them in these areas
	Understand the specificity of journalistic contents for voice-activated devices and assistants
	Discuss the benefits and limitations of content production for voice-activated devices and assistants
	Understand the role of Natural Language Processing (NLP) in the field
	Understand the role of algorithms in the field
	Know when it's appropriate to deploy content production for voice-activated devices and assistants
	Knowing the importance of search in what regards these types of contents
	Understand how these types of contents are creating a new object for journalism and identify

the main audiences: How to prepare contents to be read and to be found
Produce samples of contents for voice-activated devices – looking at formats: the news brief.

#### 8. Content

#### [for 12 weeks]

8.1. Course	Teaching methods	Observations
	[connected to professional & transversal competencies]	[link among proposed teaching methods and intended competences]
Course - week 1  Course introduction  Syllabus  Class presentation  Brief history of voice-activate devices and assistants  State of the art of voice-activated devices and assistants	Lecture	Translate theoretical insights into journalistic practice and vice versa  Guided discussion about the state of the art
Course – week 2  Voice-activated devices and assistants and their use in media and journalism  Discussion focused on present and future uses	Lecture, discussion, questions/answers	Innovation skills in the field Problem solving skills  Translate theoretical insights into journalistic practice and vice versa
Course – week 3  Understand the specificity of journalistic contents for voice-activated devices and assistants  Understand how these types of contents are creating a new object for journalism and identify the main audiences	Lecture, discussion, questions/answers	Innovation skills in the field  Translate theoretical insights into journalistic practice and vice versa  Being able to discuss appropriately the benefits and limitations of the journalistic content production for voice-activated devices and assistants
Course - week 5  Knowing the importance of search in what regards. contents for voice-	Lecture, discussion, questions/answers	Innovation skills in the field Problem solving skills Translate theoretical insights into



activated assistants and devices		journalistic practice and vice versa
activated assistants and devices		
Understand the role of algorithms in the field		Being able to discuss appropriately the benefits and limitations of the journalistic content production for voice-activated devices and assistants
Discussing the benefits and limitations of content. production for voice-activated devices and assistants  Know when it's appropriate to deploy content production for voice-activated devices and assistants	Lecture, discussion, questions/answers	Innovation skills in the field  Problem solving skills  Translate theoretical insights into journalistic practice and vice versa  Skills to reflect and identify upon when is appropriate to deploy voice content production for voice-activated devices and assistants in a newsroom  Being able to discuss appropriately the benefits and limitations of the journalistic content production for voice-activated devices and assistants
What is Natural Language Processing (NPL) and its role in the field  Languages and limitations to produce and search contents for voice-activated devices and assistants	Lecture, discussion, questions/answer	Innovation skills in the field  Translate theoretical insights into journalistic practice and vice versa  Skills to reflect and identify upon when is appropriate to deploy voice content production for voice-activated devices and assistants in a newsroom  Being able to discuss appropriately the benefits and limitations of the journalistic content production for voice-activated devices and assistants
Course – week 12  The growing importance of voice content: how to prepare a newsroom for this challenge	Lecture, discussion, questions/answer	Innovation skills in the field Problem solving skills  Translate theoretical insights into journalistic practice and vice versa
8.2 Seminar/laboratory	Teaching methods	Observations
	[connected to professional &	[link among proposed teaching

	transversal competencies]	methods and intended competences]
Seminar - week 4 Write do be spoken and to be found: the specificities of journalistic contents for voice-activated assistants and devices	Discussion, questions/answer, practice - hands-on	Collaboration skills Innovation skills in the field Problem solving skills Translate theoretical insights into journalistic practice and vice versa
Seminar - week 6 Produce samples of contents for voice-activated devices – looking at formats: the news brief	Discussion, questions/answer, practice - hands-on	Collaboration skills Innovation skills in the field Problem solving skills Translate theoretical insights into journalistic practice and vice versa
Seminar - week 10 Create and present a sketch for a starting strategy for implementing the production of voice content for voice-activated devices and assistants	Discussion, questions/answer, practice - hands-on	Collaboration skills Innovation skills in the field Problem solving skills Translate theoretical insights into journalistic practice and vice versa
Seminar - week 11 Presentation of the sketch for a starting strategy for implementing the production of a voice content for voice-activated devices and assistants	Discussion, questions/answer, practice - hands-on, group work	Collaboration skills. Innovation skills in the field. Problem solving skills. Translate theoretical insights into journalistic practice and vice versa.

#### 9.1. Compulsory (core) bibliography

- Amelia (2020), A Beginner's Guide to Conversational AI- executive summary. Amelia.com BBC News Lab (2020), Journalism innovation in 2020, Available at <a href="https://bbcnewslabs.co.uk/news/2020/journalism-innovation-2020s/?fbclid=IwAR0Z7vCpRDsbx78zzpyTrd">https://bbcnewslabs.co.uk/news/2020/journalism-innovation-2020s/?fbclid=IwAR0Z7vCpRDsbx78zzpyTrd</a> kBfxcQ-N53a200k-LB2N6Sbze-505YFXwVo8
- CDEI (2019), Smart Speakers and Voice Assistants, Available at <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment</a> data/file/831180/Snapshot Paper Smart Speakers and Voice Assistants.pdf
- Chung, H., Iorga, M., Voas, J., & Lee, S. (2017), *Alexa, can I trust you?*, Computer, 50(9), 100-104.
- Dahlman, E., Parkvall, S., & Skold, J. (2018). 5G NR: The next generation wireless access technology. Academic Press.
- Global Web Index (2019), Connecting the dots Consumer trends that will shape 2020, Available at: https://www.globalwebindex.com/reports/trends-2020
- Kinnunen, V. (2020), Voice Control: How can new audio technologies build trust and engagement?, The London School of Economics and Political Science, Available at <a href="https://blogs.lse.ac.uk/polis/2020/02/28/how-can-new-audio-technologies-build-trust-and-">https://blogs.lse.ac.uk/polis/2020/02/28/how-can-new-audio-technologies-build-trust-and-</a>
  - <u>engagement/?fbclid=IwAR1SNFFPjGZsGWeff17onArwteqY3xqXjOlLgWLDwkXlzfCu7bROFBscgb4</u>
- Kinsella, B. & Mutcheler, A. (2019), Smart Speaker Consumer Adoption Report. VoiceBot.Ai.

- Kinsella, B. & Mutcheler, A. (2019). *The State Of Voice As A Marketing Channel Assistants.* VoiceBot.Ai.
- Latin America Business Stories (2019), *A promissora ascensão das assistentes de voz no Brasil*, Available at <a href="https://labs.ebanx.com/pt-br/artigos/tecnologia/a-promissora-ascensao-das-assistentes-de-voz-no-brasil/">https://labs.ebanx.com/pt-br/artigos/tecnologia/a-promissora-ascensao-das-assistentes-de-voz-no-brasil/</a>
- Lima, L., Furtado, V., Furtado, E. S., Almeida, V., & Silva, T. H. D. (2019), *Discrimination analysis of intelligent voice assistants*. Proceedings of the 18th Brazilian Symposium on Human Factors in Computing Systems (pp. 1-7)

#### 9.2. Additional bibliography

- Alter, S. (2003), 18 reasons why IT-reliant work systems should replace "The IT artifact" as the core subject matter of the IS field, Communications of the AIS, 12(23): 365–394.
- Beckett, C. (2019), New powers, new responsibilities: a global survey of journalism and artificial intelligence (Polis/LSE), available at <a href="https://blogs.lse.ac.uk/polis/2019/11/18/new-powers-new-responsibilities/">https://blogs.lse.ac.uk/polis/2019/11/18/new-powers-new-responsibilities/</a>
- Bharadwaj, A., El Sawy O. A., Pavlou P. A. and Venkatraman, N. (2013), *Digital business strategy: Toward a next generation of insights.* MIS Quarterly, 37(2): 471–482.
- Blackie, R. (2019), *Opinion: The case for smart speakers being overhyped*, available at <a href="https://www.thedrum.com/opinion/2019/02/20/the-case-smartspeakers-being-overhyped">https://www.thedrum.com/opinion/2019/02/20/the-case-smartspeakers-being-overhyped</a>
- Castells, M. (2011). A Era Da Informação: Economia, Sociedade e Cultura. Paz e Terra. Cormode, G., & Thottan, M. (Eds.). (2010). Algorithms for next generation networks. Springer Science & Business Media.
- Corrêa, E. S., & Bertocchi, D. (2012), A cena cibercultural do jornalismo contemporâneo: web semântica, algoritmos, aplicativos e curadoria, Matrizes, 5(2), 123-144.
- Harari, Y. N. (2019), Sapiens: A Brief History of Humankind, Harper, N.Y.
- Hoy, M. B. (2018), *Alexa, Siri, Cortana, and more: an introduction to voice assistants*, Medical reference services quarterly, 37(1), 81-88.
- IBM (s.d), IBM Shoebox. Available at <a href="https://www.ibm.com/ibm/history/exhibits/specialprod1/specialprod1/7.html">https://www.ibm.com/ibm/history/exhibits/specialprod1/specialprod1/5.html</a>
- Incrível (n/d), 20 Internautas relatam histórias bizarras protagonizadas por assistentes virtuais. Available at <a href="https://incrivel.club/inspiracao-historias/20-internautas-relatam-historias-bizarras-protagonizadas-por-assistentes-virtuais-1088910/?utm source=tsp pages&utm medium=fb organic&utm campaign=fb g r incrivel&fbclid=IwAR1 t07GTq4Un9URbwJnufwUZEtxsad9ZZvJQswZVd409uo7Rrb AszaTNzw
- Indurkhya, N., & Damerau, F. J. (Eds.). (2010). *Handbook of natural language processing (2 ed)*. CRC Press.
- Jordan, M. I., & Mitchell, T. M. (2015), *Machine learning: Trends, perspectives, and prospects*. Science, 349(6245), 255-260.
- Kemp, S. (2020), *Digital around the world in April 2020*, Available at: <a href="https://wearesocial.com/blog/2020/04/digital-around-the-world-in-april-2020">https://wearesocial.com/blog/2020/04/digital-around-the-world-in-april-2020</a>
- Kemp, S. (2020), *Digital in 2020*, We Are Social, Available at https://wearesocial.com/digital-2020
- Kemp, S. (2020), *Digital in 2020*, We Are Social, Available at <a href="https://wearesocial.com/blog/2020/07/digital-use-around-the-world-in-july-2020">https://wearesocial.com/blog/2020/07/digital-use-around-the-world-in-july-2020</a>
- Mari, A. (2019). Voice Commerce: Understanding shopping-related voice assistants and their effect on brands. IMMAA Annual Conference. Northwestern University in Qatar, Doha (Qatar)
- Marketing Land (2020), More than 200 million smart speakers have been sold, why aren't they a marketing channel?, Available at: <a href="https://marketingland.com/more-than-">https://marketingland.com/more-than-</a>

- <u>200-million-smart-speakers-have-been-sold-why-arent-they-a-marketing-channel-276012</u>
- Mueller, J. P., & Massaron, L. (2016). *Machine learning for dummies*. John Wiley & Sons.
- Mueller, J. P., & Massaron, L. (2017). Algorithms for dummies. John Wiley & Sons.
- Mueller, J. P., & Massaron, L. (2018). *Artificial intelligence for dummies*. John Wiley & Sons.
- Newman, D. & McClimans, F. (2019), *Experience 2030: The Future of Customer Experience is... Now!*, Futurum Research.
- Newman, N. (2019), Executive Summary and Key Findings of the 2019 Report, Reuters Institute for the Study of journalism, Oxford. Available at <a href="http://www.digitalnewsreport.org/survey/2019/overview-key-findings-2019/">http://www.digitalnewsreport.org/survey/2019/overview-key-findings-2019/</a>
- Newman, N. (2020), *Journalism, Media, and Technology Trends and Predictions 2020*, Reuters Institute for the Study of journalism, Oxford. Available at: <a href="http://www.digitalnewsreport.org/publications/2020/journalism-media-and-technology-trends-and-predictions-2020/?fbclid=IwAR3Zb4bEtu3i9rWEAprkOiQ5i9UUVI0rsykjN5B9Sd-X8NJA3BnS-2020/?fbclid=IwAR3Zb4bEtu3i9rWEAprkOiQ5i9UUVI0rsykjN5B9Sd-X8NJA3BnS-2020/?fbclid=IwAR3Zb4bEtu3i9rWEAprkOiQ5i9UUVI0rsykjN5B9Sd-X8NJA3BnS-2020/?fbclid=IwAR3Zb4bEtu3i9rWEAprkOiQ5i9UUVI0rsykjN5B9Sd-X8NJA3BnS-2020/?fbclid=IwAR3Zb4bEtu3i9rWEAprkOiQ5i9UUVI0rsykjN5B9Sd-X8NJA3BnS-2020/?fbclid=IwAR3Zb4bEtu3i9rWEAprkOiQ5i9UUVI0rsykjN5B9Sd-X8NJA3BnS-2020/?fbclid=IwAR3Zb4bEtu3i9rWEAprkOiQ5i9UUVI0rsykjN5B9Sd-X8NJA3BnS-2020/?fbclid=IwAR3Zb4bEtu3i9rWEAprkOiQ5i9UUVI0rsykjN5B9Sd-X8NJA3BnS-2020/?fbclid=IwAR3Zb4bEtu3i9rWEAprkOiQ5i9UUVI0rsykjN5B9Sd-X8NJA3BnS-2020/?fbclid=IwAR3Zb4bEtu3i9rWEAprkOiQ5i9UUVI0rsykjN5B9Sd-X8NJA3BnS-2020/?fbclid=IwAR3Zb4bEtu3i9rWEAprkOiQ5i9UUVI0rsykjN5B9Sd-X8NJA3BnS-2020/?fbclid=IwAR3Zb4bEtu3i9rWEAprkOiQ5i9UUVI0rsykjN5B9Sd-X8NJA3BnS-2020/?fbclid=IwAR3Zb4bEtu3i9rWEAprkOiQ5i9UUVI0rsykjN5B9Sd-X8NJA3BnS-2020/?fbclid=IwAR3Zb4bEtu3i9rWEAprkOiQ5i9UUVI0rsykjN5B9Sd-X8NJA3BnS-2020/?fbclid=IwAR3Zb4bEtu3i9rWEAprkOiQ5i9UUVI0rsykjN5B9Sd-X8NJA3BnS-2020/?fbclid=IwAR3Zb4bEtu3i9rWEAprkOiQ5i9UUVI0rsykjN5B9Sd-X8NJA3BnS-2020/?fbclid=IwAR3Zb4bEtu3i9rWEAprkOiQ5i9UUVI0rsykjN5B9Sd-X8NJA3BnS-2020/?fbclid=IwAR3Zb4bEtu3i9rWEAprkOiQ5i9UUVI0rsykjN5B9Sd-X8NJA3BnS-2020/?fbclid=IwAR3Zb4bEtu3i9rWEAprkOiQ5i9UUVI0rsykjN5B9Sd-X8NJA3BNS-2020/?fbclid=IwAR3Zb4bEtu3i9rWEAprkOiQ5i9UUVI0rsykjN5B9Sd-X8NJA3BNS-2020/?fbclid=IwAR3Zb4bEtu3i9rWEAprkOiQ5i9UUVI0rsykjN5B9Sd-X8NJA3BNS-2020/?fbclid=IwAR3Zb4bEtu3i9rAdaa-2020/?fbclid=IwAR3Zb4bEtu3i9rAdaa-2020/?fbclid=IwAR3Zb4bEtu3i9rAdaa-2020/?fbclid=IwAR3Zb4bEtu3i9rAdaa-2020/?fbclid=IwAR3Zb4bEtu3i9rAdaa-2020/?fbclid=IwAR3Zb4bEtu3i9rAdaa-2020/?fbclid=IwAR3Zb4bEtu3i9rAdaa-2020/?fbclid=IwAR3Zb4bEtu3iPAA-2020/?fbclid=IwAR3Zb4bEtu3iPAA-2020/?fbclid=IwAAA-2020/?fbclid=IwAAA-2020/?fbclid
  - 2020/?fbclid=IwAR3Zb4bEtu3i9rWEAprkOiQ5i9UUVI0rsykjN5B9Sd-X8NJA3BnS-kIH4S4
- Newman, N. et al (2019), *Reuters Institute Digital News Report 2019*, Reuters Institute for the Study of journalism, Oxford.
- NewVoice (2020), Assistentes: mais de mil frases de ativação involuntária, Available at <a href="https://newvoice.ai/2020/07/03/assistentes-mais-de-mil-frases-de-ativacao-involuntaria/">https://newvoice.ai/2020/07/03/assistentes-mais-de-mil-frases-de-ativacao-involuntaria/</a>
- NPR & Edison Research (2020), <u>The smart audio report 2020</u>, Available at <a href="https://www.edisonresearch.com/the-smart-audio-report-2020-from-npr-and-edison-research/">https://www.edisonresearch.com/the-smart-audio-report-2020-from-npr-and-edison-research/</a>
- Olson, C. & Kemery, K. (2019), Voice Report, Microsoft & Bing.
- Pavlik, J. V. (1999), New media and news: Implications for the future of journalism, New Media & Society, 1(1), 54-59.
- Perini, M. A. (2005). Gramática descritiva do português brasileiro. Editora Ática.
- Perini, M. A. (2019). Thematic Relations. Springer International Publishing.
- Prodigioso Volcan (2020), *IA para periodistas: una herramienta por explotar*. Prodigioso Volcan, Available at <a href="https://www.prodigiosovolcan.com/sismogramas/ia-periodistas/prodigioso-volcan-IA-para-periodistas.pdf">https://www.prodigiosovolcan.com/sismogramas/ia-periodistas/prodigioso-volcan-IA-para-periodistas.pdf</a>
- PWC (2018), Consumer Intelligence Series: Prepare for the voice revolution. PWC.
- Rodriguez, J. (2015). Fundamentals of 5G mobile networks. John Wiley & Sons.
- Shalev-Shwartz, S., & Ben-David, S. (2014). *Understanding machine learning: From theory to algorithms*. Cambridge university press.
- Skiena, S. S. (2008), *The Algorithm Design Manual*. Springer, London.
- Smith, J. (2018), *The Voice Apps Report*, BI intelligence, Available at: https://store.businessinsider.com/products/the-voice-apps-report?IR=T&utm\_campaign=content\_marketing\_store\_link&utm\_content=report\_s tore\_content\_marketing\_text\_link\_4&utm\_medium=content\_marketing&utm\_sourc e=businessinsider&utm\_term=content\_marketing\_store\_text\_link\_google-assistant-language-support-advantage-2017-11&vertical=mobile#!/The-Voice-Assistant-Landscape-Report/p/80521209
- Statista (2020), Smart speakers Statistics & Facts, Available at https://www.statista.com/topics/4748/smart-speakers/
- VoiceBot.ai (2018), *Voice Assistant Timeline*, Available at <a href="https://voicebot.ai/voice-assistant-history-timeline/">https://voicebot.ai/voice-assistant-history-timeline/</a>
- VoiceBot.ai (2020), Smart Home Consumer Adoption Executive Summary Report. Voicebot.ai
- VoiceLabs.co (2017), The 2017 Voice Report executive summary. VoiceLabs.co.
- Webb, A. (2020), 2020 Tech Trends Report, Future Today Institute.

## 10. How is the discipline connected to the expectations of the professional /epistemic community

Our previous research made clear that the voice market is growing, especially in what regards content production for voice-activated assistants and devices, most of the journalists that are working in the field were self-taught, they have been learning by doing and trying to get knowledge from several sources, in some cases not linked specifically with communication or journalism teaching. So, bearing in mind the growing importance of this field it is extremely necessary that we start to have an offer that is specifically thought for journalists.

## 11. How is the discipline connected to the rest of the journalistic / communication studies curriculum

Being able to offer our students state of the art disciplines that mirror the evolution of journalism and media is one of the goals of every educator, and since this as very important field it is crucial to offer our students the possibility to have contact with this field, in manner that it will help them be the most well prepared possible to do their job. Also it is important to stress out the role of academia in innovation.

#### 12. Evaluation

[How to measure students' acquired abilities, through different instruments, such as: tests; analyses of existing journalistic examples; essays; suggested portfolio]

Type of activity	12.1 Evaluation criteria	12.2 Evaluation methods
Course	Class participation (10 %)	Knowledge of the compulsory reading, ability to answer questions during the lecture or/and discuss topics.
Course	Individual assignment (60%)	Written academic essay (max. 10 pages) focused on one of the topics of the course.
Seminar/laboratory	Group assignments (30%)	In each seminar there will a different group assignment that will represent 10% of the overall score

#### 12.3 Minimum performance standard [linked to specific objectives/ learning outcomes]

60 % of the overall score; all tasks must be finished and submitted/performed

#### 13. Rationale

This course is structured bearing in mind the role of academia in innovation, hence voice-activated devices and assistants are more and more part of our daily lives and they represent an interesting way for journalism to be consumed, it is important for students to have contact with this new field and be able to take innovation, or at least discuss be positioned to discuss this when in the work market.

#### **Benchmarking courses**

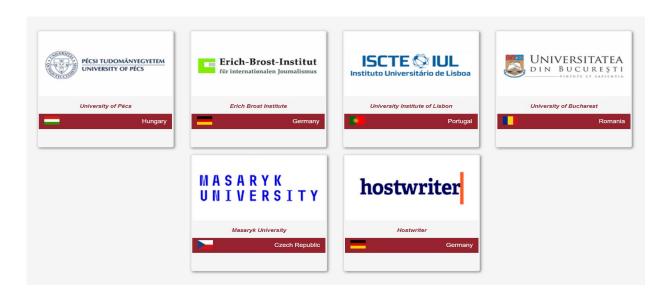
We found no specific courses on this subject. But we were inspired in courses from several other areas, hence this is a multidisciplinary area.

Audio Storytelling for Journalists: How to tell stories on podcasts, voice assistants, social audio, and beyond.

https://latamjournalismreview.org/pt-br/articles/aprenda-a-contar-historias-empodcasts-assistentes-de-voz-audio-social-e-muito-mais-inscreva-se-no-curso-destorytelling-em-audio-para-jornalistas/



This syllabus is under the Attribution 4.0 International (CC BY 4.0) license.



New Teaching Fields for the Next Generation of Journalists | 2020-1-HU01-KA203-078824

#### NewsReel2

2020-1-HU01-KA203-078824

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

# voice-activated assistants and devices

A syllabus for Journalism and Media Studies programmes





