

# Vocapedia Reborn: A True Wiki Resource for Voice Teachers

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Vocapedia is NATS' online information resource. In existence since 2014, Vocapedia has recently undergone a transformation into a true wiki format. In this article, the author reviews the history of Vocapedia, discusses its new format, and urges voice teachers, collaborative pianists, choral directors, speech language pathologists, voice researchers, and others who enjoy and study the voice to contribute to the resource and to refine and update its content.

**W**HAT ARE VOCAL TRACT FORMANTS? According to an online source, vocal tract formants are

... spectral peaks in the frequency spectrum of the human voice that are determined by the resonant frequencies of the vocal tract. Formants are important for speech because they provide information about the size and shape of the vocal tract, which can help distinguish between different speech sounds and convey meaning in spoken language.<sup>1</sup>

But what is a vocal tract? A reputable source indicates that the vocal tract is

... the space from immediately above the vocal folds through where the sound exits into the atmosphere. It consists of the pharynx (throat), oral cavity (mouth), and sometimes the nasal cavity (depending on the sound being produced). It is a resonator for the sound waves being produced by the vibrating vocal folds. Sometimes it is referred to as a «filter» for these sound waves; however, it acts more as an equalizer, amplifying some frequency bandwidths and attenuating others. The vocal tract resonance properties are determined by its length and shape. Chang[ing] the size and locations of constrictions within the vocal tract will amplify or attenuate certain frequency bandwidths due to the creation of standing waves.<sup>2</sup>

Would you be surprised to learn that both definitions of important voice acoustic terms come from the same resource? Both terms are defined in NATS' online information resource, Vocapedia, which is celebrating its tenth anniversary this summer with a new, true wiki format.

## A BRIEF HISTORY

The idea for Vocapedia came from Kathryn Proctor-Duax, who was NATS president from 2012–2014. It was her vision to create a website open to the public that would provide voice information that was confirmed by experts to be scientifically accurate and readily accessible to the lay public. Her hope was that a choir teacher at a high school giving a singing lesson could answer a question about voice acoustics by visiting the Vocapedia website and finding

an answer using search terms understandable to student and teacher alike.

President Proctor-Duax charged Deirdre Michael, who was the chair of the Voice Science Advisory Committee at the time, to create, activate, and moderate Vocapedia. Michael, assisted by David Meyer, gathered a vetting team of voice science and singing voice experts to review resources to be included in Vocapedia.<sup>3</sup> They began with existing articles from the *Journal of Singing* and searched the internet for multimedia resources pertinent to voice production and singing. The website itself was developed by NATS Executive Director Allen Henderson and the technology staff of the NATS national office. Vocapedia was introduced to the membership at the NATS National Convention in Boston in 2014.

Over the years, numerous NATS Presidents have praised Vocapedia in the pages of the *Journal of Singing*. President Norman Spivey wrote in 2015 about Vocapedia being a resource for all persons interested in voice:

Another recent resource is Vocapedia, a dynamic new information database linked from our website. It is a remarkable outgrowth of the work of the Voice Science Advisory Committee, and, because it is openly available to the public, it has the potential to change how information about singing and the science of voice is shared with the teaching community around the world.<sup>4</sup>

In 2019, NATS President Karen Brunssen again stressed the free availability of Vocapedia to the public and enjoyed going down the proverbial “rabbit hole” one afternoon in order to learn new things.

Vocapedia is free and available to everyone. It is brought to us by the Voice Science Advisory Committee of the National Board and presents educational resources about the voice. I just watched the *3D view of diaphragm* video. It was very clear and nice and short. Another couple of clicks, and I was taken to part of an article about voice science from the VASTA journal. VASTA stands for Voice and Speech Trainers Association. Then I typed “Titze” in the search area and chose one of the numerous options. With one more click there was Tony Randall and Jack Klugman in a scene from the old TV series *The Odd Couple* when Felix tells Oscar that the voice “works like a car.” That jolted a happy memory of Tony Randall, a real opera fan, coming to Northwestern University to do a master class while visiting his good friend, Sherrill Milnes. The work he did with the students’ acting was incredible. After the brief sitcom scene, Ingo Titze, along

with two other voice scientists, launches into an inspiring comparison between how cars work and how our voices work. It made a lot of sense. Next, I looked up McCoy and was taken to the two articles Scott McCoy wrote about “The Choir Issue” in our own *Journal of Singing*. Resources on Vocapedia include audio, video, and text.<sup>5</sup>

More recently, current NATS President Diana Allan hinted at changes to come (more on that below) with Vocapedia:

Not only has the Voice Science Advisory Committee (VSAC) been busy with the science-informed voice pedagogy resources initiative, but it also is working on a total makeover to Vocapedia, NATS’s information database on all aspects of singing. The committee is in the process of moving it to a new online platform that will make it much more accessible and easier to use. This will be a wonderful tool for us to use to add to our knowledge base or a handy way to look up key facts, much like Wikipedia.<sup>6</sup>

### Revitalizing the Resource

Between 2014 and 2023, the Voice Science Advisory Committee sought to maintain and expand the resource for the membership of NATS and the voice community at large. As the ten-year anniversary of Vocapedia approached, the committee decided to look at new options for the online information resource. A subcommittee led by Aaron Johnson of New York University explored various options, with the idea of moving to a true wiki format as a goal.

To make the transition to a true wiki format, NATS worked with WikiTeq (<https://wikiteq.com/>), an external development team, to develop the wiki infrastructure. After testing several options, the subcommittee selected MediaWiki (<https://www.mediawiki.org/wiki/MediaWiki>), which is the open-source platform on which Wikipedia is based. Features of this platform that are attractive include easy content search, intuitive forms for adding and editing content, and minimal need for maintenance. In designing the site, content was separated into two types: “article” for short, topic-focused, original content (see <https://vocapedia.info/wiki/Articles>) and “resource” for existing resources, such as external websites and multimedia (see <https://vocapedia.info/wiki/Category:Resources>). All existing Vocapedia content was transferred into the new wiki as the “resource” content type.

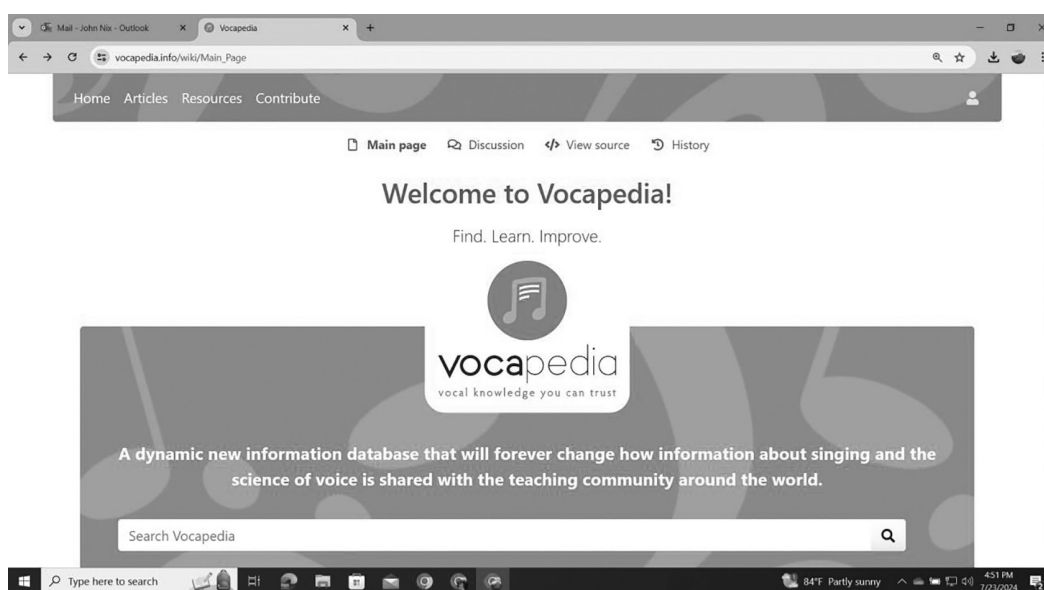


Figure 1. Vocapedia Main Page

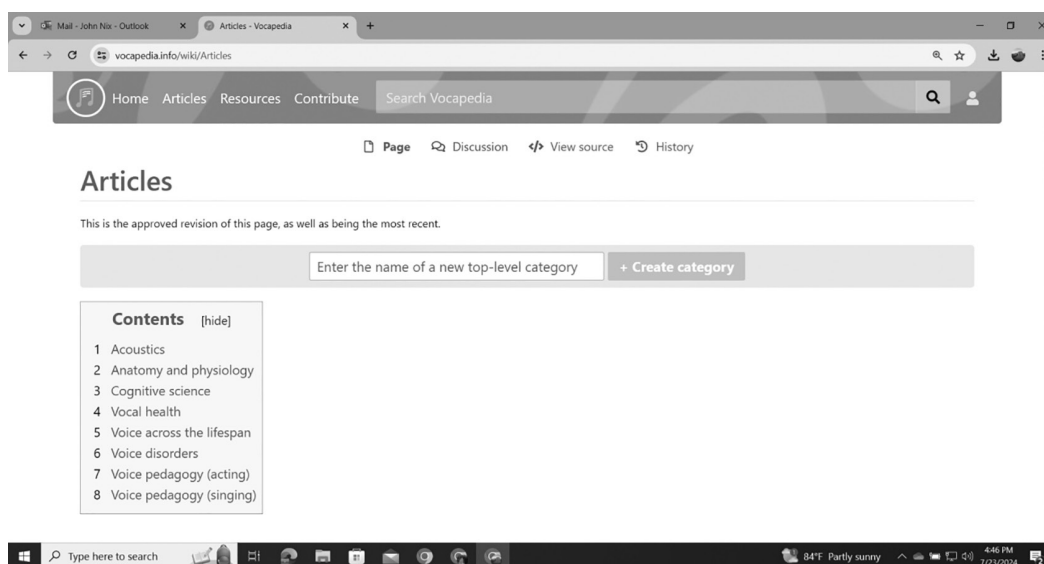


Figure 2. Vocapedia Subject Areas

### Exploring the New Vocapedia

The new landing page is quite different from the original Vocapedia in look and in function. Figure 1 shows the main page, which can be found at [https://vocapedia.info/wiki/Main\\_Page](https://vocapedia.info/wiki/Main_Page).

Along the top is a navigation bar which appears on all pages. The bar has the following options: Home, Articles, Resources, and Contribute, plus a search bar in which one can type in a query. Clicking on **Home**

returns you to the main page. Clicking on **Articles** takes you to short content segments and definitions authored by experts. The Articles are organized around eight different subject areas: Acoustics, Anatomy and Physiology, Cognitive Science, Vocal Health, Voice Across the Lifespan, Voice Disorders, Voice Pedagogy (Acting), Voice Pedagogy (Singing). As you can see in Figure 2, there is great room for growth in this area of Vocapedia.

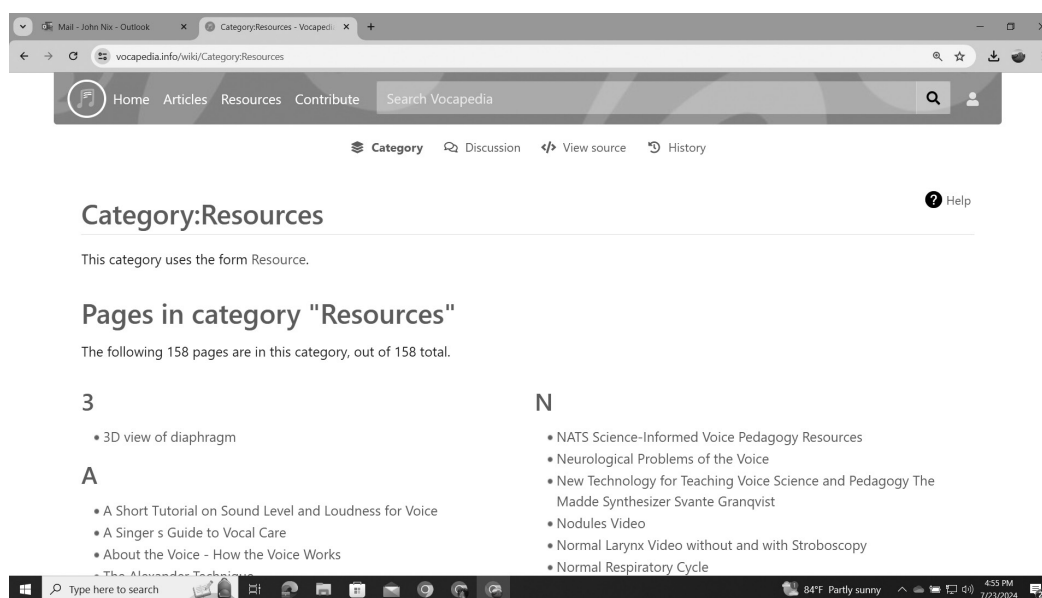


Figure 3. Vocapedia Content Sample

Clicking on **Resources** brings you an alphabetized set of hyperlinks. As was mentioned above, all previous content of Vocapedia is available in this Resources section. Figure 3 provides a glimpse of the wealth of content on this section of the Vocapedia resource.

### The Future of Vocapedia

The last link in the navigation bar is **Contribute**. By clicking on this link, a page appears describing how the new wiki works, in much the same fashion as does Wikipedia; as was stated above, Vocapedia is built on the same open-source platform that Wikipedia runs on. To contribute an article or resource, however, you first need to create an account. Looking at the blue navigation bar at the top of the screen, on the very far right there is an icon that looks like a person's head and torso. By clicking on the icon, a new account can be created, permitting the user to edit or contribute content to the wiki.

The associate editors of this column also serve as co-chairs of the Voice Science Advisory Committee; in this capacity, we request your help. For Vocapedia to grow and flourish, we need to leverage your expertise as singers, teachers of singing, speech-language pathologists, conductors, collaborative pianists, and voice researchers. We need to mine the body of knowledge that resides

in the NATS membership to develop the database of articles and resources. We invite you to contribute to the development and continual updating of this rich resource. For those of you who are classroom teaching, invite your students to try Vocapedia. Assign students in your classes to go on a voice scavenger hunt using the search function. Vocapedia is an ever-expanding resource, and like all wikis, it remains a work in progress. If you fail to find the resource you need and wish to submit a request regarding particular content that you would find useful, please send a brief email outlining your request to [vocapedia@nats.org](mailto:vocapedia@nats.org). Alternatively, if something is missing and you can contribute content (including the required evidence and references), create an account and use the "Contribute" link to submit it for review.

In presentations and in articles, the authors of this column have often said "Voice Science is for Everyone." With the new, enhanced Vocapedia, NATS continues to provide the means for all to learn and benefit from voice science, research, and medicine.

### ACKNOWLEDGMENT

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## NOTES

1. Vocapedia, "Vocal tract formants," accessed June 12, 2024, [https://vocapedia.info/wiki/Vocal\\_tract\\_formants](https://vocapedia.info/wiki/Vocal_tract_formants).
2. Vocapedia, "Vocal tract," accessed June 12, 2024, [https://vocapedia.info/wiki/Vocal\\_tract](https://vocapedia.info/wiki/Vocal_tract).
3. The original vetting team for Vocapedia content was James Doing, Matt Edwards, Robert Edwin, Marina Gilman, Lynn Holding, Wendy LeBorgne, Jeannie LoVetri, Scott McCoy, Deirdre Michael, Leda Searce, Ron Scherer, and Don Simonson.
4. Norman Spivey, "NATS National Offerings—How You Can 'Get with the Program,'" *Journal of Singing* 71, no. 4 (March/April 2015): 410.
5. Karen Brunssen, "Valuable Learning Tools at nats.org," *Journal of Singing* 75, no. 3 (January/February 2019): 241.
6. Diana Allan, "Your Voice Matters," *Journal of Singing* 79, no. 4 (March/April 2023): 430.

7. <https://doi.org/10.53830/OCIX2278>

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## 2025 Van L. Lawrence Fellowship

### Application Deadline: Nov. 15, 2024

The Van L. Lawrence Fellowship was created to honor Van L. Lawrence, M.D. for his outstanding contribution to voice, and particularly to recognize the importance of the interdisciplinary education he fostered among laryngologists and singing teachers. The Fellowship is a joint award from the Voice Foundation and the Foundation Heritage Fund of the NATS Endowment.

#### Candidates for the Van L. Lawrence Fellowship shall be:

1. A member of the National Association of Teachers of Singing who is actively engaged in teaching.
2. The Fellowship shall be awarded to candidates who have demonstrated excellence in their professions as singing teachers, and who have shown interest in and knowledge of voice science.

Members of NATS wishing to apply for the fellowship should write a letter of intent to The Voice Foundation along with your CV — combined into one PDF. Include the area and methods of your proposed study plan. E-mail: [office@voicefoundation.org](mailto:office@voicefoundation.org)

- a. Current application of scientific knowledge in the studio;
- b. The area of intended study and/or research project and the study plan and methods;
- c. How the Fellowship and research project will benefit your teaching;
- d. NATS Chapter to which you belong;
- e. A detailed curriculum vita.

The fellowship will be awarded at the next Symposium: Care of the Professional Voice  
May 28th–June 1st, 2025, in Philadelphia

For more information, contact The Voice Foundation at 215-735-7999 or email [office@voicefoundation.org](mailto:office@voicefoundation.org).  
Visit [nats.org](https://nats.org) for complete application instructions.



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