As more and more technology makes its way into the orchestra hall, real-time program note software is changing the way concertgoers listen to and interact with live performances.

by Jeremy Reynolds

Heading to the symphony tonight? There’s an app for that.

Imagine this: you arrive at your local concert hall looking spiffy and take your seat. The lights dim, and instead of a recorded voice reminding you to turn that pesky ringer off, it tells you to keep your cell phone on for the duration of the concert. The voice walks you through downloading an app, and as the orchestra begins to play, the app begins playing a slideshow of information about the form of the piece and relevant historical background, requiring you to occasionally glance at your phone to learn on the go, much like glancing at a printed program during the performance.

Cool, right? But what’s the point?

The app is part of a larger effort to use technology in the concert hall to help audiences connect with orchestras, whether through live streaming with high-definition drone cameras; setting aside an area for listeners to tweet or text about their experience; pro-
jecting video clips during concerts; or even inviting listeners to take part by downloading sound clips and then playing them when cued. The content is intended to supplement and complement printed programs, and is created and curated by musicologists, conductors, musicians, orchestra staff, or journalists. The tech allows orchestras to explain a work’s form and context and provide a platform for performers to share their thoughts on what they’re playing, while they’re playing. Within the past few years, some of the programs to emerge are EnCue, currently on the market; LiveNote, which will become publicly available next season; and ConcertCue, which is in development.

These apps aren’t orchestras’ first experiments with handheld tech inside the concert hall. As far back as the 1990s, a Los Angeles musician developed a series of “Concert Companion” program notes on CD-ROMs. The Aspen Music Festival passed out handheld computers with the notes loaded in 2003, and the Pittsburgh Symphony Orchestra attempted a similar tech trial around the same period. Those pilot programs didn’t gain traction.

But with tech’s ubiquity, expectations have changed in recent years. “There are so many other distractions in the hall—paper crumpling, cell phones going off, coughing and so on—real-time program notes actually seem pretty minor,” says Ezra Wiesner, managing director of IT for the Philadelphia Orchestra and the Kimmel Center, and one of the chief developers of LiveNote. “We took a lot of risk with this experiment, but ultimately if you aren’t into it it’s easy enough to ignore, and if you are into it it’s a fantastic experience. I think we’re going to see more and more of these apps everywhere.”

A recent LiveNote-enabled performance by the Philadelphia Orchestra at the Kimmel Center featured Shostakovich’s Symphony No. 7 (“Leningrad”). After downloading the app on my iPhone, I was prompted to select from one of two tracks of content: one detailed the history of the work’s composition, and the other explained the form of the music and provided analysis about the compositional techniques within the symphony. I chose the latter, and as the orchestra began to play, the slides in the app advanced with the score, pointing out details like the instrumentation of particular themes, whenever a recurring melody returned and how it was different than before, and how that related to Shostakovich’s musical message. Terms that might be unfamiliar to listeners without a background in classical music—exposition, spiccato, recapitulation, morendo, allegretto, and so on—were highlighted in the text, and tapping on them took me to a glossary. The app was mostly text-based, with a few images of the composer or the score mixed in. Around the

Real-time program notes allow orchestras to explain a work’s form and context and provide a platform for performers to share their thoughts on what they’re playing, while they’re playing. Apps in the concert hall can help audiences connect with orchestras.

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hall, I saw a smattering of heads bowing briefly in synch with each slide change, but on the whole, no one appeared glued to a screen. The symphony-goers sitting next to me said they weren’t bothered at all by the app, though they weren’t using it themselves. Using LiveNote felt little different than the folks who like to read their program book during a concert. Casual. Normal.

For the majority of the performance, I was focused on the musicians onstage. The slides advanced only every few minutes, whenever something noteworthy happened in the music (a dramatic mood shift, the start of a new formal section—the development section, for example—or the return of a familiar theme in a new key). I’d catch the motion on my screen out of the corner of my eye, glance down for a few seconds to read the content, and then consider the messages as I listened to the symphony. The app was not intrusive. On the contrary, I felt consistently engaged with what was happening onstage. Quotes from Shostakovich occasionally blinked onto my phone screen, helping me to understand the incredible drama behind the “Leningrad” Symphony and how the composer wove that heartache and turmoil into his music. I’ve heard Shostakovich’s Seventh before, and I’m familiar with its tumultuous history, but using LiveNote that evening helped connect me to the music more intimately. I wasn’t alone. On my way out of the hall I heard small groups of other attendees discussing the app and the content they’d viewed—and how it helped draw them into the music.

Pushback against these innovations is understandable. While most orchestras offer mobile apps to streamline administrative processes like buying a ticket or making a donation, inviting concertgoers to stay connected with their phones during a performance has musicians, administrators, and audiences alike concerned about distracting and detracting from the music itself. Anjan Shah, marketing director for Octava LLC, the company that developed EnCue, downplays these concerns, describing the experience as “kind of like having Beethoven whisper in your ear about what’s important.” And Jeremy Rothman, vice president of artistic planning at the Philadelphia Orchestra, says, “Nobody is more concerned about the

The Philadelphia Orchestra used LiveNote for about five concerts in the 2014-15 season, including the College Night event at Verizon Hall pictured above. Next season, at least one Philadelphia Orchestra concert on each subscription weekend will feature LiveNote.

Above: The Philadelphia Orchestra’s LiveNote app provides information about a work’s history and compositional structure, translations and texts for vocal works, images, and a glossary of terms.
preservation of live performance than we are. We want it to feel like a friend tapping you on the shoulder during a concert and saying, ‘hey, check this out.’"

LiveNote, EnCue, and ConcertCue all use negative text (light colored text on a dark background) to keep screen brightness to a minimum. They say they’ve received almost exclusively positive feedback so far from post-concert surveys, and the apps’ developers have worked to ensure that their tech enhances a listener’s concert experience without calling too much attention to itself. This spring, the Reading Symphony Orchestra, Illinois Symphony, River Oaks Chamber Orchestra, the Pacific Symphony, the National Orchestral Institute, the London Symphony Orchestra, and the Royal Philharmonic Orchestra all have EnCue-enabled performances scheduled. And millennials aren’t the only ones interested in trying out the tech—surveys have indicated that users range in age from their twenties to their nineties.

Wiesner says that he’s heard from several orchestras expressing interest in trying out LiveNote next season. The Boston Symphony Orchestra, which is developing ConcertCue, reports that other orchestras are requesting information about ConcertCue. Next season will be a litmus test for how this technology fares in the field, but if early data and reports are any indication, the programs may play an integral part in helping concertgoers connect to what they’re hearing. They may even teach aficionados a new thing or two.

This spring, the Reading Symphony Orchestra, Illinois Symphony, River Oaks Chamber Orchestra, the Pacific Symphony, and the National Orchestral Institute all used program-note apps at performances.

Philadelphia’s LiveNote
The Philadelphia Orchestra began developing LiveNote in 2011 in partnership with Drexel University and launched the app in 2014. LiveNote provides audiences in-performance access to information including a work’s history, compositional structure, translations and texts for vocal works, images, and a glossary of terms. The orchestra used LiveNote for about five concerts during the 2014-15 season and increased usage each year since then. Next season, at least one Philadelphia Orchestra concert each subscription weekend will feature LiveNote.

The LiveNote app works on Apple and Android devices and is tethered to the wireless network at the Kimmel Center, where the orchestra performs. When the software was first being developed, the LiveNote team experimented with a music detection system, hoping to fully automate and synchronize the slides’ progression with the music. But that has proven difficult. Currently, an orchestra staff member sits with a copy of the score and manually advances the content in real time with the music (EnCue and ConcertCue both require a score reader as well). The orchestra intends to use detection software once the kinks are worked out. The process of changing slides in the app is akin to changing supertitles for an opera company—a staff member capable of reading a score will advance the slides. Listeners can adjust the text size and brightness of the app; with the two “tracks” of content, one following history, the other form and content, it’s possible to toggle back and forth between the two during the concert.

With minimal marketing, the number of listeners using LiveNote in a concert that features the app has averaged about 13 percent of attendees, but the Philadelphia Orchestra’s Ezra Wiesner expects that number to go up after the orchestra launches LiveNote 2.0 this spring. To roll out the upgraded app, the Philadelphia Orchestra has partnered with InstantEncore, one of the leading developers of mo-
bile apps for performing arts groups. The company experimented with live streaming and digital downloads of classical concerts, but its focus is now on creating mobile platforms for arts organizations. When LiveNote 2.0 is released later this year, it will use standard cellular signals, allowing any orchestra to access the software beginning in September 2018.

“People have always been looking to augment the concert experience in one way or another,” says Chris Montgomery, InstantEncore’s CEO. “But it makes sense that as mobile tech gets more infused into our daily lives, it’ll become more ubiquitous in concert situations.” To turn on LiveNote, an orchestra with an InstantEncore app will pay an annual fee based on the size of the organization. The orchestra will control which concerts and which pieces LiveNote will be used for, and it will have the option to either pay a fee to use stock content (for regularly performed works in the standard repertoire) or be able to create its own content for free. Opera companies will also have the option to pay a fee to license libretto translations from the library or create their own for free.

“It’s going to be pretty easy for others to create their own content,” Wiesner says. “You don’t need a background in tech.”

EnCue
EnCue (formerly known as Octava) is on the market and rapidly expanding. Two professors at the University of Maryland, Baltimore County spent six years developing EnCue before Houston’s River Oaks Chamber Orchestra (ROCO) debuted the program in February 2016. Octava’s Anjan Shah says he receives around five or six inquiries a week from orchestras interested in what pieces EnCue has been used for and what sort of feedback audiences are giving. Shah expects to roll out an upgraded version of EnCue within the next nine to eighteen months. EnCue founders have created stock slides for roughly 35 commonly performed orchestral works, but they also built a content management system for orchestras interested in creating their own slides.

And sometimes, concertgoers using the app can hear right from the performers and composers themselves, which is particularly useful for new works. “We use EnCue to share commentary [curated in advance] directly from our performers, so even while playing they can connect and talk with the audience, things like ‘listen to this crescendo coming up in the cellos,’” says Amy Gibbs, managing director of ROCO. “We especially like using it for commissions and sharing the composer’s thoughts on their own pieces.” Gibbs says she was surprised by the age demographics: the typical age of concertgoers using the app is 55 to 75, with patrons ranging in age from their twenties to their nineties reporting that they enjoy using the app.

Andrew Constantine is the music director of the Reading Symphony Orchestra (PA) and the Fort Wayne Symphony (IN), both of which have tested EnCue this season. Constantine, who writes the content for his EnCue concerts himself, says that “This does create quite a workload, and it can be time consuming. But it’s about breaking down barriers. We live in a time when audiences know less than ever about the music they hear at the symphony—but they’re eager to know more.”

EnCue’s standard fee is $300 per piece per performance, and the price drops if an orchestra buys in bulk. Prices are still evolving when it comes to real-time concert-note apps. At the Illinois Symphony Orchestra, Executive Director Trevor Orthmann says that EnCue’s low price...
makes it affordable for smaller orchestras. The Illinois Symphony first tried EnCue in January and followed up with surveys to assess audience response. Ninety percent of respondents said they had a positive experience with EnCue. Those numbers aren’t unusual. “Most people seem to really like it,” Orthmann says. “Some people said that ‘The symphony is my escape from tech’ and this could interfere a little with that, but overall we’re very pleased with the results.”

Constantine says these using this tech “was novel once, but not so much anymore, and while it may have been a bit uncomfortable at first, once you get used to it, it improves the quality of your experience. It becomes part of the fabric of everyday life.”

**Boston’s Concert Cue**
The Boston Symphony Orchestra is cautiously rolling out ConcertCue, first restricting its usage in their hall to the Casual Friday series. A concert in February marked the second time the orchestra has used ConcertCue in Boston Symphony Hall. “I think people are comfortable enough with this technology that maybe it’s not as much of a heresy as it was before,” says Eran Egozy, who developed ConcertCue in collaboration with the BSO. Egozy is a professor at Massachusetts Institute of Technology and co-founder of Harmonix Music Systems, a game development studio best known for creating *Guitar Hero*. He’s also a BSO board member and sits on the media and technology committee. “I’m interested in this [ConcertCue] becoming as available as possible,” Egozy says. “This is not something I think of as a commercial venture.”

He aims to make the technology affordable. For now, the orchestra will continue to use ConcertCue only at its Casual Fridays concerts. Egozy notes, “ConcertCue is still in an early prototype phase of development, and there is still a lot of work to be done. We would like to partner with a few forward-looking orchestras or music ensembles who want to get involved in the early phases of our research and development process.” When we spoke this winter, Egozy had heard from several orchestras and partners interested in trying out ConcertCue.

Unlike EnCue and LiveNote, Con-
concert Cue is not an app. It is a mobile website that can be accessed using wifi or cellular signals. “In my lab, I tried to create a system that wouldn’t be tied down to one orchestra,” Egozy explains. “Mobile websites are much easier to access; I know this from developing apps and games out in the real world. As soon as you ask someone to download an app, you lose 90 percent of your audience.” ConcertCue isn’t available to other orchestras yet, and Egozy is looking to partner with orchestras or music ensembles as the project continues its research and development phase. He’s toying with the idea of open-sourcing ConcertCue (think Wikipedia or International Music Score Library Project for real-time content for orchestras), and he is considering charging only a small fee for server upkeep while encouraging orchestras to create their own shareable content.

Understanding the composer’s state of mind during the composition process or what the performers are focusing on in specific passages has a powerful effect on a listener’s appreciation of a piece of music, as can understanding how the music is constructed and what to listen for. The fact that orchestras are simultaneously experimenting with three different programs indicates widespread interest in real-time program notes. “Competition is a great thing!” says InstantEncore’s Chris Montgomery. “It shows that there’s a real demand in the market for this, and we all have our different lanes.”

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