

IBM Creates New Fan Experiences using AI and Hybrid Cloud for First-Ever Spectator-less US Open

IBM and USTA bring tournament to life with virtual sports debates and hyper-relevant match insights using IBM Watson, underpinned by an open hybrid cloud architecture

FLUSHING, N.Y., Aug. 28, 2020 /PRNewswire/ -- IBM, the digital partner of the United States Tennis Association (USTA) for 29 years, announced today innovative new fan experiences leveraging artificial intelligence (AI) underpinned by hybrid cloud technologies that will enable millions of fans around the world to experience the excitement and vibrant debate surrounding the iconic tennis Grand Slam, the first ever without fans on-site.

Experience the interactive Multichannel News Release here: <https://www.multivu.com/players/English/8668652-ibm-creates-new-ai-fan-experiences-for-us-open/>

A recent IBM sponsored survey of 2000 U.S. sports fans highlighted the importance of digital experiences during the COVID-19 pandemic. Nearly half (48%) of sports fans who responded think having an interactive digital experience, (streaming, video content, highlights, stats, etc.) has become more important since the coronavirus outbreak.¹ Specifically, younger generations have a greater desire for digital experiences, with Gen Z (64%) and Millennials (61%) saying it has become "more important."

New Fan Experiences, Shift to Fans Everywhere

In partnership with the USTA, IBM developed three unique and new tennis-based digital experiences. Two of the new solutions are based on Natural Language Processing (NLP) capabilities from IBM Watson, pulling from a variety of data sets and running workloads on multiple clouds. At IBM, NLP is critical to AI for business because it enables interpretation of the trends and insights hidden within large amounts of data - including charts, tables, PDFs, images and more. The new solutions were developed by [IBM iX](#), one of the world's largest digital design agencies, and are available on Official US Open platforms, including USOpen.org and the [US Open app](#). A team of IBM iX experts in design and technology collaborated virtually with the USTA digital team, utilizing the [IBM Garage Methodology](#) to co-create the new fan experiences and fast-track their deployment.

The new solutions and the technology powering them include:

- **Open Questions with Watson Discovery:** To give fans a way to engage remotely in iconic sports rivalries, IBM will facilitate several debates among fans on USOpen.org. Starting with a question on hot tennis topics such as "Is Billie Jean King the most influential tennis player in history?", IBM will use the NLP capabilities in [Watson Discovery](#) to analyze millions of news and sports sources for insights. That unstructured data will be analyzed, summarized and ultimately delivered as pro and con arguments using IBM Research technology. Fans will also be able to share their opinions on the debates, and engage on topics they are passionate about.
- **Match Insights with Watson Discovery:** Fans can become instant "experts" about the players and the tournament match-ups with new AI-powered insights ahead of each match. Match Insights with [Watson Discovery](#) uses NLP technology to search for and understand millions of articles, blogs and thought leaders

leading into a match, to gather the most relevant information. The solution uses Natural Language Generation technology from IBM Research to translate structured data - like statistics from prior matches - into narrative form, so fans can get fact-based insights on the players and their opponents ahead of match play.

- **AI Sounds:** Among the challenges the USTA faced this year was how to recreate the sound of fans inside the stadium. IBM leveraged its AI Highlights technology to recreate crowd sounds gleaned from hundreds of hours of video footage captured during last years' tournament. In past years, AI Highlights used Watson to digest video footage and rank the excitement level of each clip to compile a highlight reel in near-real time and classify specific crowd reactions, including the crowd roar, to give each clip a crowd reaction score. This insight will be used this year to dynamically serve up those sounds based on similar play from last year. The AI Sounds tools will be available to the production teams in-stadium and at ESPN.

Underpinned by Open Hybrid Cloud

The new fan experience solutions pull from a variety of data sets and APIs running on IBM public cloud and on private clouds. To handle the variety of different workloads required, the USTA is using [Red Hat OpenShift](#) to enable a seamless experience across multiple public and private clouds. This hybrid cloud architecture gave the USTA's digital operation the flexibility and hyper-scale it needed to quickly embrace remote work while maintaining productivity and ensuring the highest commercial level of data security.² A hybrid cloud architecture will enable remote operations to function seamlessly. For example, the USTA statisticians who would normally be courtside, providing stats for each point live, will now be offsite watching each match on low-latency feeds and will still be able to deliver game stats as if they were onsite.

Agile development leads to faster design, testing, deployment

On June 17th, just 75 days before the start of match play, the announcement was made to hold the tournament without fans on-site. As the technology partner of the USTA, IBM had less than twelve weeks to conceive, develop, test and deliver new digital experiences for fans. IBM's hybrid cloud architecture with Red Hat OpenShift provided the operational agility and flexibility necessary to quickly develop new experiences powered by IBM Watson's advanced NLP.

"COVID-19 brought disruption to sports as a whole, and the ability of fans to experience live sporting events has been heavily impacted in 2020. At the same time, the pandemic accelerated the need for engaging technologies using AI and underpinned by a scalable hybrid cloud," said Noah Syken, Vice President of Sports & Entertainment Partnerships, IBM. "As the technology partner to the USTA, we transformed our offerings to meet tennis fans where they are this year - experiencing the sport through the US Open digital properties everywhere."

"US Open digital properties will deliver the tournament to millions of fans around the world, and this year, IBM's new digital experiences will bring more data-driven player insight than ever before," said Kirsten Corio, Managing Director, Ticketing, Hospitality and Digital Strategy, USTA. "Our digital properties and interactive fan experiences have led the way in engaging tennis and sports fans, and we know this year that's more important than ever. We've shifted our platforms and experiences to engage with fans everywhere in this new virtual-only environment."

The US Open runs from August 31 through September 13. To see the technology in action, visit USOpen.org, or on your mobile device via the US Open app, available in the [Apple](#) and [Android](#) app stores.

CONTACT:

Angelena Abate


646-234-8060

Angelena.Abate@IBM.com

¹ Morning Consult and IBM Sports and Tech Survey: Survey responses from 2000 US Sports fans. July 2020

² The Federal Information Processing Standard (FIPS) Publication 140-2 is a U.S. government computer security standard used to approve cryptographic modules. It is issued by the National Institute of Standards and Technology (NIST). Level 4 is the highest level of security.

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Additional assets available online:  [Photos \(4\)](#)

 [Video \(1\)](#)



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