

SMPTE FORUM 2015

SMPTE Hosts Second Forum Event in Europe, in Partnership with the FKTG By Barbara H. Lange



From 7-8 May 2015, the second SMPTE Forum event found its place in Europe. The first Forum was held in Geneva, Switzerland, in May 2012. This time, we partnered with the Fernseh-und Kinotechnische Gesellschaft (FKTG) and selected the vibrant German capital, Berlin, where we were fabulously hosted by the Fraunhofer Institute with support from the European Broadcast Union (EBU).

Taking the topic presented at SMPTE's Silicon Valley event, the SMPTE Forum 2015 provided a European perspective to Entertainment Technology in the Internet Age. Hans Hoffmann, head of media fundamentals and production technology at the EBU, chaired the program committee, which created a compelling series of sessions on topics discussing over-the-top (OTT) as a premium content provider, understanding hybrid broadcast broadband TV (HbbTV), preserving the artistic intent when delivering content over the Internet, and the role social media plays in entertainment media. Other sessions included considerations of European Union (E.U.) versus U.S. regulatory environments, web-based virtual reality (VR) as an entertainment tool, immersive audio, and understanding the many formats for delivering content for the web, how the Internet is changing live sports broadcasting, and the second screen from an EU and U.S. perspective. It was a busy two days filled with discussions and considerations that are still not all defined.



Chris Fetner and Barbara Lange chat over coffee.

Day one kicked off with a keynote address by Chris Fetner, Netflix. As one of the largest distributors of entertainment content over the Internet, Netflix is constantly looking for efficiencies. Today, there are 62 million Netflix subscribers around the world, watching 10 billion hours of content on 1,200 different receiving devices. It is critical to gain efficiencies for content delivery and to reduce the 7% delivery failure rate. Netflix has embraced SMPTE's Interoperable Master Format (IMF) as the standard that enables a single master format for its multiple distribution paths. Fetner stated that the industry needs open standards to enable the innovation for the next century and supporting organizations like SMPTE will be critical.

A panel discussing the creation and distribution of entertainment content for the web repeated the notion of standards.



(L-R) Hans Hoffmann, EBU; Juergen Burghart, FKTG; SMPTE Education Vice President Pat Griffis; Rainer Schaefer, FKTG; SMPTE Executive Director Barbara Lange; and Siegfried Foessel, FKTG.

SMPTE Education Vice President Pat Griffis, also of Dolby, moderated a panel that included Robert Amlung of ZDF, Anil Kokaram of Google/YouTube, and Simon Fell of the EBU. The panel reiterated that the industry needs standards for the successful conversion between linear and nonlinear content distribution. Even though OTT viewing is still only to 2-3% of overall viewing, it is growing and will force broadcasters to make investments. While content remains king, the challenge is delivering quality images via the Internet in a cost-effective way. Clearly, OTT distribution has not yet achieved the stability of broadcast and cable delivery. There are issues with limits to bandwidth and a number of simultaneous viewers for OTT. Additionally, OTT is still quite expensive to implement. Where broadcast has a strong base and tradition of reliability, OTT has hurdles to overcome. Still, it is likely to be the “norm” within five years, Kokaram said.

HbbTV is an initiative, founded in 2009, that blends together the broadcast and broadband delivery of content to the consumer through connected smart televisions or set-top boxes. Klaus Illgner of Institut für Rundfunktechnik (IRT), Lars Friedrich of LF Media Consulting, and Mika Kanerva of sofiadigital, described HbbTV is a globally relevant initiative that supports a majority of connected televisions and technology platforms for OTT services. Illgner asserted that “HbbTV is OTT.” With a strong presence in Europe and Australia, the challenge is expanding HbbTV adoption to other parts of the world.

SMPTE Governor Richard Welsh of Sundog Media Toolkit, moderated a session on preserving the artistic intent to the consumer. A live demonstration by Touradj Ebrahimi, professor at Swiss Federal Institute of Technology in Lausanne (EPFL) and current convener of the JPEG committee, demonstrated tools now available that can change the center of focus on a given image, depending on the story’s intended direction. Creators and artists will be able to modify content before delivering it to the consumer; VR is another tool for creative storytelling. The panel discussed viewer screen size and processing power as challenges that still need to be addressed before such tools become mainstream, although it is all encouraging for the creative community.

The first day concluded with a session, moderated by Deborah Mattattia of EPFL Social Media Lab, addressing how social media can be used for entertainment. Mark Kornfilt of Livestream discussed the components of successful live streaming, which include staying top-of-mind to the viewers, being relevant and in control while moving the audience. “Not easy skills to achieve at once,” Kornfilt remarked. Daniel Scuka of the European Space Agency presented an interesting example of how social media was used to build up an expert viewers community during the recent “Rosetta mission” where the Rosetta spacecraft successfully landed on a comet in November 2014. Ebrahimi, standing in for Leonardo Chiariglione, gave an overview of the MPEG standards development and what new standards are expected.

The SMPTE Forum guests ended their first day on a dinner cruise on Berlin’s Spree River. During a three-hour tour along the city’s river, the group enjoyed good networking time as they floated past many interesting sights, including Germany’s Parliament and government buildings, and the elegant Charlottenburg Palace.

The second day of the event opened with a keynote address from Thomas Staneker of Deutsche Telekom, who discussed the need to harmonize technology across Europe, despite the different content types being delivered. Staneker stated that the industry needs specialized people with skills as more content is delivered to viewers via the Internet. He predicted that by 2020, television would be produced and distributed in the cloud from a central data center. Staneker’s tip for the television industry is not to “keep calm and carry on,” nor is it to panic. Rather, he believes the industry needs to “keep calm and start running,” and that we should remain proactively engaged as the industry evolves.

A conference focused on Internet content delivery would not be complete without a regulatory session. James Burger of Thompson Coburn moderated this session, which included views from both sides of the Atlantic. Peter Pitsch of Intel described the U.S. position on “net neutrality” and explained what it means for broadcasters and telecommunications firms. Ultimately, Pitsch predicts it will result in more work for U.S. courts. Anne-Catherine Berg of the EBU described the E.U. situation where finding a consensus among 28 countries will be challenging. She stated that the open nature of the Internet should be safeguarded. Carlos Perez of DG Connect described three aspects of the open Internet: the rights of end-users, the fostering of innovation and specialized services, and the implementation across the many countries. Scott Marcus, a consultant, remarked that the U.S. issues come down to lack of competition. He asked, “will the U.S. ever re-introduce real competition?”

A session dedicated to VR via the web, was moderated by Andrew Perkis of the Norwegian University of Science and Technology. Two experts in VR provided examples of the research they are conducting and the reaction among viewers. Mel Slater, professor at ICREA-University of Barcelona, gave examples of how people are responding to VR. Doran Friedmann of Sammy Ofer School of Communication in Israel discussed how VR can create interactive storytelling, possibly even digital time travel.

Sound is as important as the moving image, this was the takeaway from a session on making good audio delivered over the web. Siegfried Foessel of Fraunhofer IIS moderated a session, which included Bernhard Grill, also of Fraunhofer IIS, and Matthieu Parmentier of FranceTV, who discussed the recent developments in audio. Grill explained the different immersive



Touradj Ebrahimi



Hans Hoffmann



Renganathan Ramamoorthy of Google.

systems, including object-based audio systems. Parmentier discussed the challenges in production and distribution, impact of metadata, and audio-rendering engines.

Kokaram hosted a session on translating traditional content of the web. Todd Prives of Google discussed the use of cloud rendering solutions and predicted that more feature films would utilize cloud-rendering services moving forward. Derek Buitenhuis of Vimeo explained the myriad of open source tools that are being used for rendering and transcoding content. He emphasized the need for open standards that can keep pace with the proliferation of toolsets being developed. Renganathan Ramamoorthy of Chrome Media at Google stated that the most-watched video is the buffer spin! He spoke of the need to have adaptive bit rates, though there are trade-offs and behavior differs between Europe and the United States.

Sports is a genre that is appealing to viewers in all parts of the world. Simon Gauntlett of Digital TV Group (DTG) set the scene and moderated a panel with Christy King of Levels Beyond, Stephan Heimbecher of Sky Deutschland GmbH & Co., and Carlo De Marchis of Deltatre. This panel focused on the specifics of delivering compelling sports via the Internet. King described the need for metadata and statistics plus 360° camera experiences to enhance the programming. Heimbacher talked about increasing the awareness of technology that will enhance the



Scenes from the dinner cruise.



Francoise Abbe of Mesclado poses a question during a Q & A session.

viewer experience, though ultrahigh-definition (UHD) is still being assessed. And De Marchis discussed how using metadata would make for a new television viewing experience as the production builds different content for different platforms.

The SMPTE Forum concluded with a session hosted by Francoise Abbe of Mesclado, centered on the so-called, "second screen" experience and how it differs between the U.S. and European market. Jonas Schlatterbeck of Association Relative à la Télévision Européenne (ARTE), presented statistics that demonstrated Europe lagging behind many other countries in this regard, though use of second screen is increasing. He explained that ARTE has a bi-media strategy that centers on engaging the consumer and drawing them closer to the broadcaster. SMPTE President Robert Seidel, also of CBS, reported on the success of CBS' AllAccess, an important component of the broadcast network's digital strategy. This product allows for localization that enables network affiliates opportunities to monetize programming. Finally, Elger Van der Wel of Nederlandse Omroep Stichting (NOS) discussed the second screen as the first screen.

All in all, the SMPTE Forum 2015 brought together an abundance of experience from around the world. Many important topics were presented and discussed as delegates interacted with expert presenters. We thank our partners at the FKTG, Fraunhofer and the EBU for their outstanding support in executing an excellent event.