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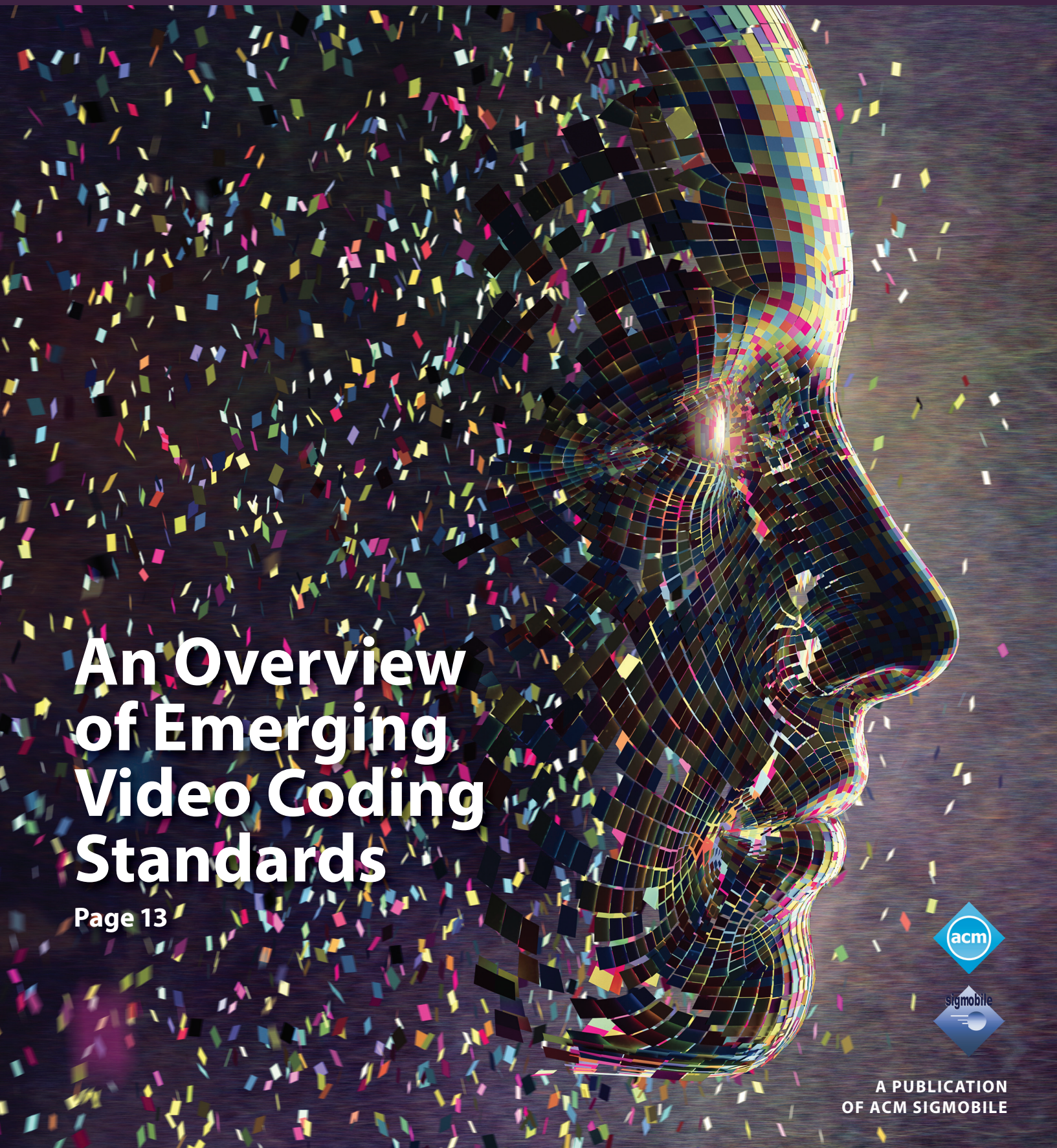
GetMobile



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MESSAGE FROM THE EDITOR-IN-CHIEF

"NEVER BE AFRAID TO TRY SOMETHING NEW. REMEMBER, AMATEURS BUILT THE ARK. PROFESSIONALS BUILT THE TITANIC." – Unknown

Eyal de Lara

THE TIME HAS COME for me to step down as editor-in-chief of GetMobile. I want to take this opportunity to reflect on my experience at the head of the publication. I took over the helm of SIGMOBILE's flagship publication with the stated goal of transforming it from what was basically an archival journal that published papers drawn from a traditional open call into a magazine consisting of a set of regular sections curated by a committed group of editors. To herald this transformation, a new name was chosen and MC^{2}R became GetMobile.

I have to admit that, like many others, I had doubts about the long-term viability of the project. Would we be able to continue to produce a high-quality magazine on a quarterly basis year after year, or would we run out of material after publishing a handful of papers authored by the usual suspects?

Alas, seventeen issues later, and thanks to the concerted efforts and dedication by a large group of talented and motivated individuals, GetMobile is going strong! I want to thank the SIGMOBILE Executive Board for believing in this new vision, and for providing the resources to make it happen. My thanks go to the members of the editorial board for their relentless commitment to secure and shepherd articles; the high-quality content we publish is the result of their selfless efforts. I also want to express my deep appreciation to Donna Paris who, as managing editor, has made my job as editor-in-chief (almost) a walk in the park, as well as to our designer, JoAnn McHardy, for producing our beautiful layouts and graphics. Finally, I want to thank all the contributing authors for entrusting us with their content.

It is my pleasure to announce that the SIGMOBILE Executive Board has confirmed Dr. Landon Cox as my successor. Landon earned his PhD in Electrical Engineering and Computer Science from the University of Michigan in 2005 under the direction of Prof. Brian D. Noble. Landon is a senior researcher in the Mobility and Networking Group at Microsoft Research Redmond. Before joining Microsoft, Landon was an associate professor with tenure in the Department of Computer Science at Duke University. Landon's research is on experimental software systems with a focus on privacy in mobile computing and operating systems. He is perhaps best known for his work on TaintDroid, an information-

flow tracking system for realtime privacy monitoring on smartphones. Landon has also taken several important leadership roles in our community, including serving as TPC Chair of HotMobile in 2011 and MobiSys in 2014. He is clearly a leader and a visionary in our field, and I cannot think of anyone better qualified to take GetMobile forward.

In this issue, we highlight three papers from ACM MobiSys 2018. In "RuntimeDroid: Restarting-Free Runtime Change Handling for Android Apps," Umar Farooq and Zhijia Zhao point out that in Android systems, configuration changes, such as screen orientation changes, screen resizing, keyboard attachments, and language switching, are typically handled by application restarting, which, due to poor coding practices, can result in user data loss to app crashes. The authors describe a restart-free runtime that avoids the need for application restarting while ensuring proper resource updating and user data preservation.

"Augmented Vehicular Reality: Enabling Extended Vision for Future Automobiles," by Hang Qiu, Fawad Ahmad, Fan Bai, Marco Gruteser, and Ramesh Govindan present an approach that improves vehicular safety in autonomous driving by extending a vehicle's visual horizon by enabling it to wirelessly share visual information with other nearby vehicles.

Lastly, "Mobile Imaging Using Acoustic Signals," by Wenguang Mao, Mei Wang, and Lili Qiu describes an acoustic imaging system that runs on a phone without extra hardware and can detect objects under clothing and inside bags.

The rest of the issue consists of four additional columns:

In the Experimental Methods column, Julie A. Kientz explores the merits of conducting small Single Case designs or N-of-1 studies. The article discusses how to conduct such studies in the context of a mobile app for self-experimentation with gastrointestinal health.

In the Arm's Length column, Veljko Pejović provides an overview of Approximate Computing Techniques that save energy by reducing the amount of computation to the point where the result accuracy is just above the minimum necessary to satisfy a user's requirements.

The Standards column features an article by Ticao Zhang and Shiwen Mao, which provides an overview of existing and emerging video coding standards. The authors review the timeline of the development of the popular H.26X family video coding standards, introduce several emerging video coding standards such as AV1, VP9, and VVC, and discuss future trends that leverage advancements in machine learning and hardware acceleration.

The Awards column penned by Lin Zhong recognizes Dr. Teresa H. Meng, the 2018 SIGMOBILE Outstanding Contributions Award recipient for her groundbreaking research, engineering and entrepreneurial leadership to make Wi-Fi faster, lower power, and lower cost.

Finally, in the past→future column, Jeremy Gummeson discusses developments and challenges in the space of energy harvesting technology for mobile and ubiquitous applications.

I hope you enjoy this issue, and I welcome your thoughts about GetMobile in general, and this issue in particular. ■

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