begin

The $127 billion autonomous vehicle market is being driven by AI.

Be a New Source

In the free and open source software (FOSS) communities, the possibility to "view sources" is a sine qua non condition for the collaborative creation of computer programs, which are often a collaborative creation and share a common goal. However, the view sources metaphor extends far beyond software, even far beyond technological environments. View sources means knowing and being aware of the processes—not only ours—thinking about others, knowing what is done and how it is done, and knowing how a mechanism works, But it is also means having a holistic view of the system, of society, of groups and communities, and of our own psyche. Knowing how "something" works is as important as the use we give to said "something." Understanding its working allows us to replicate processes, adapt it to our needs, and with that knowledge have the ability to transmit it, inherit it, hack it, improve it, and make universal benefit out of the process. Essentially, be a new source by understanding the source.

That is the reason why, for this issue of *XRDS*, we wanted to incorporate an inclusive vision on various processes, not only coming from the global North, but also rooted in Latin America. Knowing other people's processes is fundamental in countries such as Mexico, Costa Rica, Uruguay, and Argentina. The contributions that are part of this issue allow us to view sources in environments as diverse as an Argentinian prison and a feminist community in Costa Rica. From the defense of virtual territories of community radios to the inclusion of women biographies in the Spanish-language Wikipedia, we invite you to take a comprehensive view. Also within are processes derived from education, accessibility for non-sighted users, security applications usability, and the opening of genetic material.

The issue begins with Christine Wolf, a returning author who explores accessibility for people with disabilities in different levels of software and hardware design. Wolf presents very interesting and often overlooked reflections that require not just producing usable items, but having bidirectional relations with our users to fully understand what they want and need. Mariel García-Montes, from Mexico, talks about the USABLE project, a community that applies a person-centric design to tackle the divides in FOSS. García-Montes questions how people in risky situations could use secure communication applications, given that the developers writing said applications don't even think about them as users. Next, is an article from Almendra Cremaschi, Patrick van Zwanenberg, Anabel Marín, Marcela Basch, and Vanesa Lowenstein. They present the Bioleft initiative, which shares with FOSS an aspiration to democratize knowledge and promote its wide circulation and progressive collective enrichment, in order to build a more diverse food system.

Argentinian Lila Pagola follows with an article explaining the not at all obvious relation between viewing sources and education in fields of knowledge that are not related to computers (or even technology). Clara Robayo Valencia tells the story of how the Libera tu Radio (free your radio) community opened and articulates its sociotechnical structure to be able to democratize the world using free technologies. Next, Firuzeh Shokooh Valle, a Puerto Rican academic living in the U.S, explores the feminist technological vision of the Sulá Batsú cooperative in Costa Rica. This vision is based in policies unthinkable in a capitalist system, such as respect for the environment, community solidarity, and sorority. This article leads us to question how can solidarity shape technology?

Federico Ternavasio, Carolina D'Amelio, and Martín Morales outline how, in difficult conditions—both regarding available amenities and sanitary status—a community based on the FOSS movement can be brought to life. The presi-

The average business runs 38 percent of workloads in public clouds and 41 percent in private clouds.

dent of Wikimedia México, Carmen Alcázar, tells us her story as the "mother" of the *Editatona* project, a stratgy to reduce the digital gender divide. This project extended to most of Latin America and Spain. Editatonas are not only gatherings exclusively for women, with the clear purpose of writing women biographies in Wikipedia, but have also become one of the leading groups to question the patriarchal structure and makeup of knowledge sharing on the internet via Wikipedia. And finally we close out with Mariana Fossatti, founder of Ártica Online. She writes about gender, diversity, and inclusion in FOSS communities. Fossatti questions how to overcome social hierarchies that are so invisibilized in daily life, and how to do so mainly in communities that try to account for inclusion and diversity such as most large FOSS projects.

To all of this, we cannot close this text without making explicit mention that this issue of *XRDS* was prepared while every one of us—feature, department, and guest editors; authors; and ACM staff—were facing the deep changes in life due to the COVID-19 outbreak. This is the first time we saw all of the world reacting to this kind of threat in a globally connected way. While each country and region we live and work from had their own particularities, we were deeply reminded of how we are now connected into a global community as we never were before. Com-

munication technology definitively played a central role in us all keeping a hang on sanity, a glimpse of normality. And now more than ever, while most of us are still under lockdowns, we must appreciate the fact that all of our social interactions do have different levels of viewing the sources for our communities. We heartily thank everyone involved for keeping an eye on pushing out this issue of *XRDS* with the same love and quality we have always done, even in face of hardship.

From our vision as Latin American editors, members in our different ways of FOSS communities, we hope this issue can offer a more open and panoramic view of the different realities outside the central nuclei of technological hegemonies—in what is often seen as the peripheries, the subalternities, the resistances. With this, we want to be empathic with the diverse fights where collaborative work and sharing have been the only mechanisms available to resist power and control. Maybe, all in all, we will put our grain of sand to "unlock" the "white" box and, finally, be able to view the sources for other possible worlds, and be a new source.

—Irene Soria
and Martín Bayo,
guest editors
Gunnar Wolf,
lead editor

Right Place, Right Time, Right People

Innovation tends to arise from groups of people pushing one another to do more. This timeline compiles a handful of highly impactful and collaborative groups where the social component of each environment has undoubtedly shaped their technical accomplishments. I hope this inspires readers to consider their own circles of innovation.

1920s Bell Laboratories is founded, and its physicists and engineers produce breakthroughs well into the 1980s. The transistor, Unix, C, and C++ are some examples of their work, in addition to multiple Nobel Prizes and Turing Awards.

1950s At NASA's Langley Research Center, human computers are used for complex calculations. This group, of which Katherine Johnson is most famed, was especially impactful not only in their technical contributions toward NASA missions, including the moon landing, but for their inspiration for others, especially minorities, to pursue STEM.

1957 Fairchild Semiconductors is founded after the "traitorous eight" leave Shockley Semiconductor due to dissatisfaction with their manager, William Shockley. The company's development of transistors and integrated circuits, especially as an early adopter of silicon, laid out an early foundation leading to today's Silicon Valley.

1985 The Free Software Foundation is founded by a group of computer scientists passionate about promoting and developing free software. Decades later, from the GNU project to Linux, open source software use is now widespread.

2010 DeepMind is founded by a group of students at the University College London aspiring to create artificial general intelligence (AGI) by training neural nets on games. The company goes on to create AlphaGo, a program able to defeat a top Go player.

—Daniela Zieba