

Hello, dear MobiCom friends,

I am Ian Akyildiz, one of the founders of MobiCom back in 1994. First and foremost, I want to extend my heartfelt thanks to the organizers for inviting me to celebrate the 30th anniversary of MobiCom. I am excited to share my thoughts on a few questions they posed to me:

The first question is about how mobile device capabilities have evolved since the early days of MobiCom.

In the early days of MobiCom, specifically between 1995 and 2000, laptops were quite basic—bulky, limited in capacity, and lacking direct Internet access. We saw the introduction of early WiFi technology during this time, relying on “dangles” to connect to the Internet. Back then, we could only communicate via data; laptops didn’t have integrated cameras or microphones, so we had to use separate devices for those features.

Cell phones were also in their infancy, existing in the 2G era. They were primarily for voice calls, with very limited bandwidth of around 64 kbps. Roaming was either non-existent or very restricted, even within cities, and connections often dropped. Handoffs between networks were frequently unsuccessful. As we moved into the early 2000s, the 3G era began, still focusing mainly on voice but introducing limited data options like SMS, emails, and voice messages. Phones became smaller, with brands like Motorola, Ericsson, and Nokia leading the market, while iPhones and Samsung devices were yet to make their debut.

Another sub-question is about the key technologies driving advancement.

In my view, the key areas include chip technology, communication technologies, multimedia communication, computing, and the demand for innovative applications.

The second question concerns the future over the next 10 to 20 years.

I believe the most exciting and transformative development will be in the Metaverse, where we’ll see digital twins or avatars of everything—humans, animals, objects, and more. AI and machine learning will create intelligent digital clones, leading to a seamless integration of our physical and digital worlds. Another promising area is the Internet of Bionanotechnology, particularly in health applications. I encourage you to check out my paper from 2015 for more insights. Additionally, advancements in nanotechnology, such as nanophones and nanocameras, will soon become a reality.

The third question is about advice for young researchers.

I encourage you to focus on producing pioneering work. It’s important to avoid writing numerous papers without making a meaningful impact. Aim for patents and work towards transferring your ideas into industry applications.

Finally, some remarks for the 30th anniversary:

I am truly delighted to see how far MobiCom has come over the past 30 years. It all started with just a small group of us, including Imre Chlamtac and myself, back in 1994. MobiCom has grown to become one of the top conferences, publishing highly impactful papers. My warmest congratulations go to the generations that followed us for shaping MobiCom into what it is today. Please continue your excellent work!

I hope to be around for the 50th anniversary, but if not, I trust my name will be remembered in MobiCom's history.

Wishing you all a wonderful and productive 30th MobiCom celebration!

Here's to many more years of success—long live MobiCom! Cheers from Iceland!