In the good old days, it was all about speed. Computer chip makers like Intel and Advanced Micro Devices tried to outdo each other by putting out ever faster chips, and then by improving battery life and making smaller, cheaper laptops.

These days, though, it's all about graphics and how well computers can process and display photos, videos and other types of media. And the competition is putting marketing departments to the test.

Gone are the crisp pitches about faster, thinner and longer-lasting products, which allowed consumers who wanted the latest and greatest computer to look for simple metrics like more gigahertz, more hours of battery life or lighter weight. Instead, now there is baffling talk about things that improve visual performance like breathtaking tessellation, zippy transcoding speeds and DirectX 11 support — all of which will be highlighted by the chip makers at this year's Consumer Electronics Show, opening in Las Vegas on Thursday.

“It is certainly a challenge,” conceded Deborah S. Conrad, the chief marketing officer at Intel. “When we talk about graphics, we see people scrunch up their noses. It is just not language people outside of our industry use.”

The focus on graphics and the visual skills of computers reflects a pair of trends taking place in the computing market.

For one, the chips in the computers to be displayed at the electronics show, and which will soon hit retail shelves, have more graphics oomph. They represent the first wave of mainstream chips that combine top-of-the-line computation and graphics functions on the same piece of silicon. The result is that even low-cost laptops will have visual performance on par with some of yesteryear's costliest, most powerful computers equipped with specialized graphics cards aimed at video gamers.

Second, consumers have driven an explosion in high-definition Web video and digital photo sharing. By some forecasts, video will account for about 90 percent of all consumer Internet traffic by 2013. Facebook says that people upload more than 100 million photos a day to its site alone.
And so, the chip makers are scrambling to meet consumers’ needs and do away with the hiccups people sometimes see when watching a video stream or the long wait to shift a home video from a camera or phone onto their PC.

“We think the new norm is this constant visual experience,” Ms. Conrad said. “You are not waiting for things to happen and getting that pinwheel on a Mac or hourglass on the PC.”

Intel, for example, is using this week’s electronics show as a platform to talk about its latest generation of chips, which include features like “Quick Think Video.” That's the humanized name for a new transcoding engine, which is something that alters the size or makeup of a file.

In this particular case, Intel brags that its new engine can take a five-minute video from a phone and, in 18 seconds, turn it into something a computer can use. By another measure, the new Intel chips can rework an hourlong home video in about four minutes.

Other features in the new Intel chips are aimed at helping movie studios deliver high-definition versions of their films and to move video streams between computers and TV screens.

Advanced Micro Devices, meanwhile, makes some of the fastest stand-alone graphics products in the industry and has included much of that technology in its latest batch of laptop chips.

Rick Bergman, a senior vice president at A.M.D., has tried to emphasize the performance of the new products by saying they offer consumers the equivalent of a hotel room with an ocean view.

“Some people are usually willing to pay a premium for that ocean view,” Mr. Bergman said, during a recent meeting with Wall Street analysts. “Well, all of us deserve the ocean view.”

A.M.D. has been working with software makers to help them rework their applications to take advantage of the new chips that include graphics engines. The company claims a lead over Intel with this type of technology, and says common programs from Microsoft, game developers and Web browser makers will display visuals better on computers based on A.M.D. chips.

For instance, technology in A.M.D.’s chips can automatically remove some of the hand-holding jiggle from movies on Web sites like YouTube. The revamped videos come out smoother and more vibrant.

To emphasize such features with consumers, A.M.D. has also spent the better part of a year trying to train retail sales representatives in the art of marketing visual performance. According to the company’s own data, about half have mastered A.M.D.’s graphics-heavy pitch.

Intel has developed what it bills as more nuanced marketing programs that target 18- to 24-year-olds with the message that top-of-the-line computers let people “write better songs, design better clothes and design better buildings,” Ms. Conrad said. The company has set up a Web site
called the Creators Project where young people can promote their creations at Intel’s expense.

Ms. Conrad said all of the attention on the visual performance of chips and investment in the accompanying technology meant that amazing graphics would be commonplace in a couple of years.

“That’s the good news,” Ms. Conrad said, before lamenting that the chip makers will then need to find the next big thing to promote.