Future Friday -- “Where are we going” in a world of DSP innovation

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To follow my colleague’s Throwback Thursday post [1] last week celebrating DSP innovation over the last 30 years, my 'Future Friday' post describes some of the innovations I believe DSP technology is driving (literally).

“Where are we going?” This is a common phrase in our family car these days as we’ve moved beyond the “are we there yet?” days. We now generally only get the kids in the car by not telling them where we’re going until they’re trapped and can’t get out. This question is often followed by “why?” or “do we have to?” to which the common replies are “because we said so” and “yes,” respectively.

So first things first – where are we going? I was all excited to tell you that we are rapidly approaching the day when we won’t be driving our cars anymore when I saw a major news item on Yahoo where Google’s CEO announced that we will have autonomous vehicles in less than 5 years…thanks Google.

So where else will we find innovation, or should I say “wear” else? It’s clear that with the convergence of communications technology, camera technology, and DSP technology, we have only scratched the surface of where we are headed. Cell phones are so integrated into our daily lives and we are so plugged into the beginnings of the ‘matrix’ that we can’t even be bothered to look up while driving – hence the need for autonomous vehicles. Clearly the idea that we have to ‘carry’ a phone cannot last much longer, heads-up displays will offer a much richer experience with the real world with overlays on our field of view. Imagine cameras capturing the 360 scene around us, wireless systems transferring the images and supercomputer systems deciphering the data and sending back and displaying contextual information on everything in our immediate environment. No more awkward stares as you try to figure out where you know that person from, no more forgetting names of people you’ve met before, no more pickpockets, etc.

Along these lines I started thinking about all the things my kids missed out on like landline phones, TV buttons and knobs, and using an encyclopedia, so below is a list that I created that I think our grandchildren will never know about:

- Cars that don’t drive themselves
- Language barriers
- Paper/coin currency
- 2-D TV and movies
- Typing
- Not knowing how far away you are from a Starbucks at all times

And in another one or two generations we start getting implanted with visual/audio augmentations…

I guess some of you may be asking “why?” we are doing these things and those who resist the upcoming technological immersion may ask “do we have to?” to which the reply is simply “because we can” and “yes”, respectively. The future of DSP innovation isn’t as far away as it seems.

http://e2e.ti.com/blogs_/b/multicoremix/default.aspx [2]

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