

## Ham Radio – Now What?

Not a prediction talk – the predictions are out there in the audience and in the presentations

This is a basket of observations and suggestions on change and our role in carrying ham radio forward.

## Golden Age of Ham Radio

### Ham Radio 1.0 - 100 Years of Radio Goodness

Technical and operating advances

Highly skilled public service

Millions of hams world-wide

Most hams, most frequencies, best technology ever

"If I'd known I was going to live this long, I'd have taken better care of myself." Eubie Blake at 103

### Strategic Point of Inflection

What's the problem?

Strategic point of inflection

Intel & Andy Grove

## Ham Radio 2.0 – The Big Pivot

Now that the centennial is past, start looking out of the windshield

Downplay nostalgia so we don't have to change ARRL to the Amateur Radio Re-enactment League

Demographics are (ahem) not all that favorable in the broad picture, better with new technical groups

Technology changes are huge! SDR, modes, math, processing power. As big a change as the IC.

This makes us nervous.

"Without accepting the fact that everything changes, we cannot find perfect composure. But unfortunately, although it is true, it is difficult for us to accept it. Because we cannot accept the truth of transience, we suffer." D. T. Suzuki

### What Do We See through the Windshield?

The idea of stations is changing:  
Remote – mobile – portable

Digital voice and data alongside analog modes – everywhere - SDR replacing nearly all of analog transceiver technology

Digital codes and protocols, very low SNR, coding gain, high bit rate

Weird solar behavior and real-time ionospheric data

**Hundreds of tiny satellites (Fox-1)**

**Awards and contests in the new environment - what do they mean?**

**Meta-data online everywhere, real-time confirmation, less and less paper**

**That's just what we can see today!**

### **Who Do We See in the Windshield?**

**Who are all these people?**

**Teens, 20s, 30s, 40s**

**Technologically savvy and global**

**Naturally online and connected**

**Members of "nearby" communities with different histories and perceptions of wireless**

### **Why Would They Become Hams?**

**Interesting and fun**

**Science + skill + service**

**New way to interact with the natural world**

**Hear the world turn**

**Emotionally and socially satisfying**

**They will form their own groups**

**Dartball story**

**Communities - online/virtual**

### **What Will These New Hams Do?**

**Something different! Ham radio 2.0!**

**Important: Version 2.0 doesn't dump 1.0 - it builds on and from it with what was learned in 1.0.**

**What they want**

**With technology they want**

**With methods they want**

**I wrote a transmitter - KD2DMH**

**Technology does not change smoothly but in jumps**

**We must challenge in a positive way**

**Interests are fragile, don't be trolls**

**Enough with "not real hams" jazz**

**"It is not necessary to change. Survival is not mandatory." W. Edwards Deming**

**Where is our common ground?**

### **The Good Arrow**

**Understand radio's physical environment**

**Improve efficiency, accuracy, and breadth of expertise**

**Encourage technical learning about communication**

**Develop new radio services and techniques**

**Create new opportunities for building and innovation**

**Grow the worldwide community of hams**

**All of these things support every service and activity in which we are engaged.**

### **Outreach, Outreach, Outreach**

**To whom will the Good Arrow be carried forward? Nothing more important, every activity must include outreach, including technology development**

**No successful technology is developed or used in isolation**

**Open all doors you can think of – remember the CB “castle”**

**Pattern on the very successful public service model**

**Hybridize and adapt new technologies to human needs**

### **Go To Where People Are!**

**Get out of the basement! Do ham radio in public and online!**

**Act like you want people to interact!**

**Tell your stories in layman language! (1000 words editor)**

**People are interested in other people!**

**Have fun! Smile! Free cookies!**

### **Build Bridges, Open Doors**

**Be a “hambassador,” participate in other groups, both inside ham radio and outside ham radio.**

**Not ham radio? AAAAAHHH!**

**All recruitment is personal and local – don’t passively wait for others to come to you and don’t wait for the ARRL to do it for you**

**The ARRL can and should help with tools and resources, organizing and publishing.**

**Use online tools, simulators (like Hamsphere), remotes, maps, spotting**

**Robotics, makers, modelers, bike/hike/camp/boat, geocache (geofoxing), programmers, etc**

**Give presentations, bring tools and gear, show your skills and how they are valuable**

**Mentor and recruit to ham radio by contributing your skills.**

**“The more you do anything that don't look like advertising the better advertising it is.” Will Rogers**

## Ham Radio's Uniqueness

Propagation and solar weather

Signals – physical and mathematical, frequencies, waves

Antennas and constructing our gear

Developing our own digital wireless technology

Being outdoors and experiencing the world in a whole new way

In a space where only hams can go

The most powerful communication service available to the private citizen anywhere in the world

## Lifetime Hams – Recruit, Train, Retain

New and existing hams need Elmering – remember how green we all were

Give them the know-how to know how-to

Turn hamfests into hamfairs and club meetings into classes

Teach principles, then illustrate with examples and stories, followup with activities

Don't let tradition become a jailer

Be the tribal elders – guide from the past to the future

## Balance, Balance, Balance

Science, service, skill

If they come in through one door, show them all the others

Amateur is Balanced

Broaden our appeal

Broaden our own horizons

There is no greater threat to Amateur Radio than demographics and complacency.

## Get On With It

We have celebrated our legacy enough – look outward and to the future.

Ask yourself what the deep, underlying principles are that need to be carried forward independent of today's ways and means.

Invite and involve other people

Ask what you, your peers, your club, your section, your division, your ARRL are doing to recruit hams to celebrate a second century

Every activity can have an outreach component – ask why not instead of now what?

"The future is already here; it's just not very evenly distributed." William Gibson

**Clinton De Soto understood this when he wrote 200 Meters and Down in 1936, anticipating the coming of television and how that would fundamentally change the technical nature of ham radio. Yet he was confident - and turned out to be right - that the society of amateurs would persevere, regardless of the technology.**

**I see Ham Radio 2.0 as incredibly exciting, with all sorts of new technologies which will change the way we operate and open up a whole new set of services, activities, and goals. A whole new group will discover on their own terms what we refer to as the magic of radio. It is our job now to take amateur radio and set it loose among them, taking pride in what we have accomplished and that we have insured its future for another century.**