Designing for Wearables

Chris Schoppa
Sr. Director, Solutions & Strategy
Mobile & Connected Devices
Symphony Teleca
Discover the different dimensions for successful wearable design

- Current trends
- Market value & ecosystem perspective
- Social acceptability
- Naturalness of function and user interaction
- A slightly different approach to wearables design
Symphony Teleca at a Glance

- 32 Global Offices
- 600+ Customers
- 6000+ Innovation Experts
- 17 Global Delivery Centers
Our Wearables Applications Work..

- Facebook
- Twitter
- MINI Gallery
- Speedometer
- SOS
- D-DAY
- Dice
- Bottle Spin
- TBT Navigation
Trends to Exploit

• The Network:
  - bi-directional access and sharing of information and context

• The Cloud:
  - Worlds largest co-processor and storage

• Analytics
  - Turning data and social knowledge into useful context and information

• Fab/Maker Movement
  - Scale only works if many need the same.
  - Expect the unexpected – your projects can create new needs!
Trends to be Aware of

- Cognitive load
- Personal Presence
- Social Convention
Designing for Wearables – Isn’t That Easy?

• There are an abundance of first order use cases

• Easy entry from a hardware design perspective

• Many ongoing projects that one can learn from
Designing for Wearables – Why This is Hard…

• Designing sticky wearable use cases is hard
  - Going beyond a gadget that creates short term excitement

• Key questions to ask
  - How much real marketable value is being delivered
  - Is there a viable model for creating an ecosystem
  - What about social acceptability of the wearable
  - How natural is the user interaction model
  - What is the product market entry point
Let’s Look at Three Categories of Wearables

Sensor-based Devices

Notification/Light Interaction Devices

Immersive experience alternatives to today’s mobile devices
Sensor-Based Devices

- **Characteristics**
  - Monitor and report data gathered through sensors – primarily health/fitness
  - Can (and should) be fashioned as jewelry
- **Interaction model**
  - Mostly Passive
- **Cloud-based aspects**
  - Analytics on your data, on groups of data sets…
- **Social-based aspects**
  - Should expand our social interactions, not change them
  - Social sharing of processed sensor data, building communities
Notification/Light Interaction Devices

- **Characteristics**
  - Contextual information at a glance with simple information drill down
  - Can serve as a platform for sensors as well
  - Tethered communication model, extension to other devices (Smartphones)

- **Interaction model**
  - Touch, swipe

- **Cloud-based aspects**
  - Displays cloud-delivered contextual information

- **Social-based aspects**
  - Should expand our social interactions, not change them
  - Expands the platforms for existing social sharing sites, communities
Immersive Experience Devices

• **Characteristics**
  - Rich image/video capability
  - Deep information drill down
  - Bi-directional internet communication

• **Interaction model**
  - Touch, multi-directional swipe
  - Motion, Facial gestures, Voice

• **Cloud-based aspects**
  - Richly connected to cloud-delivered context and content

• **Social-based aspects**
  - Perceived intrusive, distracts you from conversation with others
  - Expands the platforms for existing social sharing sites, communities
(Negative) Marketable Value Delivered

• Wearables must deliver on real value, either:
  - Provides me with information that is important to me (or my social network)
  - Reduces friction in my daily life
  - Expands, enhances my social interaction with others

• Instead, today, we see too much of
  - Health – without a real value proposition beyond fairly narrow areas
  - A lot of black bands – didn’t we just go through this with Smartphones?

• The alternative – go beyond one or two use cases
  - Holder of context about “me” and sensors…
(Real) Marketable Value Delivered

• Going Beyond Singletary Use Cases

• Host context about “me” and hosting sensors...

• Wearables to enhance safety and capability

• Use opt-in models with new/extended use cases that add value
Social Acceptability
Social Acceptability

• Wearables should expand our social interactions, not change them. We should be putting them on for others as much as for ourselves

• Function needs to follow form, not the other way round

• Value delivered through social network interaction helps, but only if social acceptability of wearing the device enhances instead of detracts.
Ecosystem Viability

“Devices without deep science and multi-sensor competence are doomed”
A Wearables Startup Playbook – Techcrunch April 12

“Manufacturers have to provide a fun and addictive social experience for wearers …”
The Case Against Wearables, or Why We Won’t All Look Like the Borg this year – Mar 3 Forbes

“Judging from iModerate's data, it’s possible that Nike has decided that creating awareness to move enough $149 FuelBand retail units wouldn't be worth the marketing dollars.”
Nike FuleBand and Other Health Wearables Have Branding Issues – Addweek May

“The exit of Nike from its FuelBand product shows how difficult hardware can be and that the real value is in the service and the data”
www.radiofreemobile.com/wearables-out-of-fuel
Ecosystem Viability – Key Themes

- It's not just what your device can do, but what it enables within a larger ecosystem – normalized data analysis, new context, and especially - social interaction, 3rd Party created value.
- Open API’s and loose coupling
- Forcing users to buy ($) a new set of accessories creates a barrier to continued use.
- It doesn’t have to be “your” ecosystem – tap into exciting work pioneered by others like Polar for example.
Naturalness of the User Interaction Model

• Light interaction devices are just that – light interaction

• Use models that we already know
  ▪ Turn the wrist and glance – just as we have since the 1920s
  ▪ Touch, Swipe
  ▪ Vibrate, Flash in response to notifications
  ▪ Voice
Finally, A Different Approach

• Along with the areas presented...

• Use of color to convey information - keeping in mind the implications of color changes by country...

• Remember that wearables fit into the broader category of the “Internet of Things” (IoT) – build a system of systems

• Use rapid prototyping to build out the device/cloud feature set – in collaboration with customers and partners
Putting it All Together

• We use devices because they bring value and reduce friction in our lives. This rule applies to wearables as well

• Social plays a huge role in adoption

• Ecosystems play a huge role in adoption

• Understand the limitations and strengths of the natural interaction model of a device
Go beyond ordinary. Wherever you want to go, we’ll get you there. Faster.