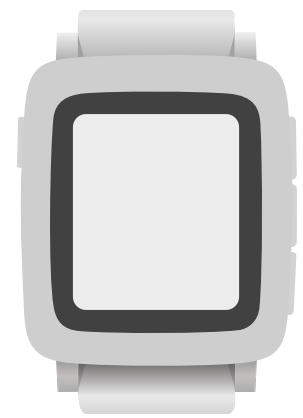


Macoun

Entwickeln für die Uhr

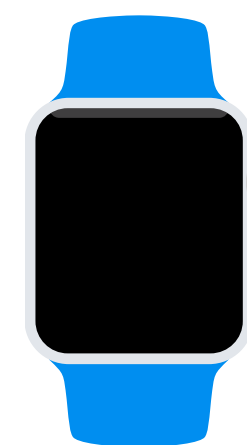
Ortwin Gentz
@ortwingentz

Smartwatch-Verkäufe wachsen von
2,3 Mio in 2013 auf 95 Mio. in 2020
– *Tractica*



1 Mio Pebble bis Ende 2014
95 k Pebble Time Kickstarter

80% der Bestellungen 42 mm
– *KGI research*



Q2: Ca. 2-2,5 Mio. Stück
– *Apple Earnings call*



68% Marktanteil in 2015
– *Tractica*



pebble



2013

pebble

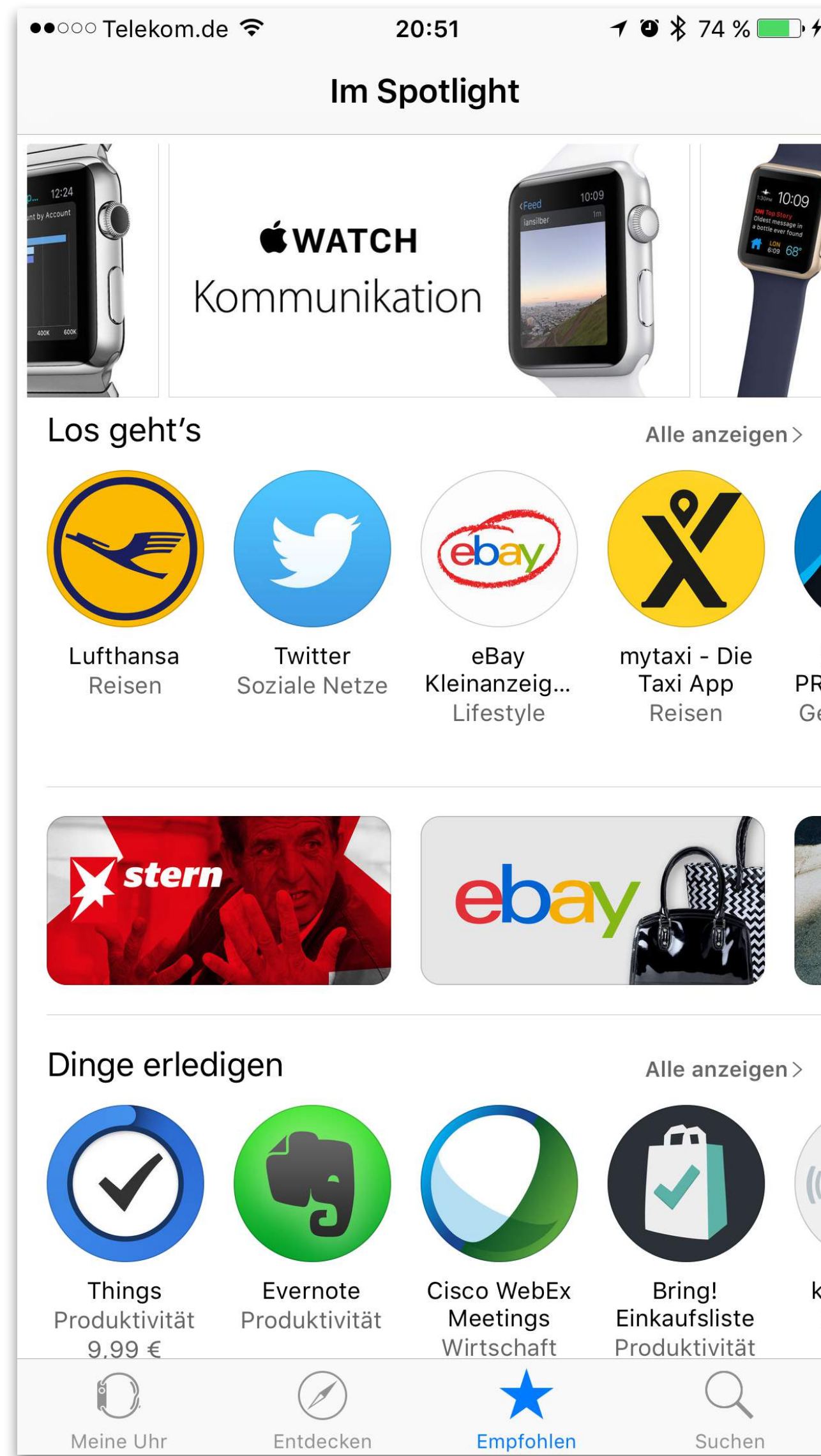
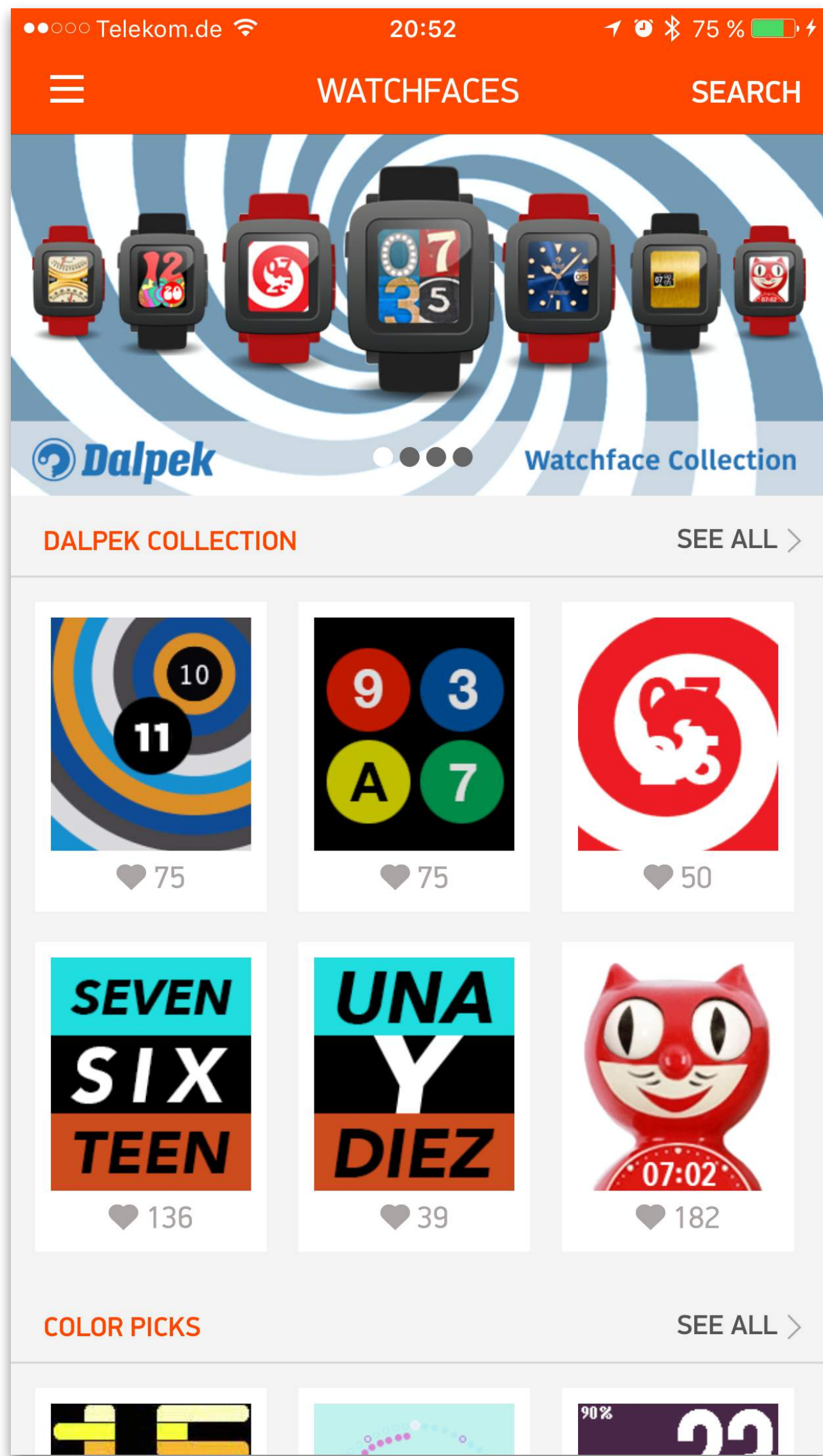


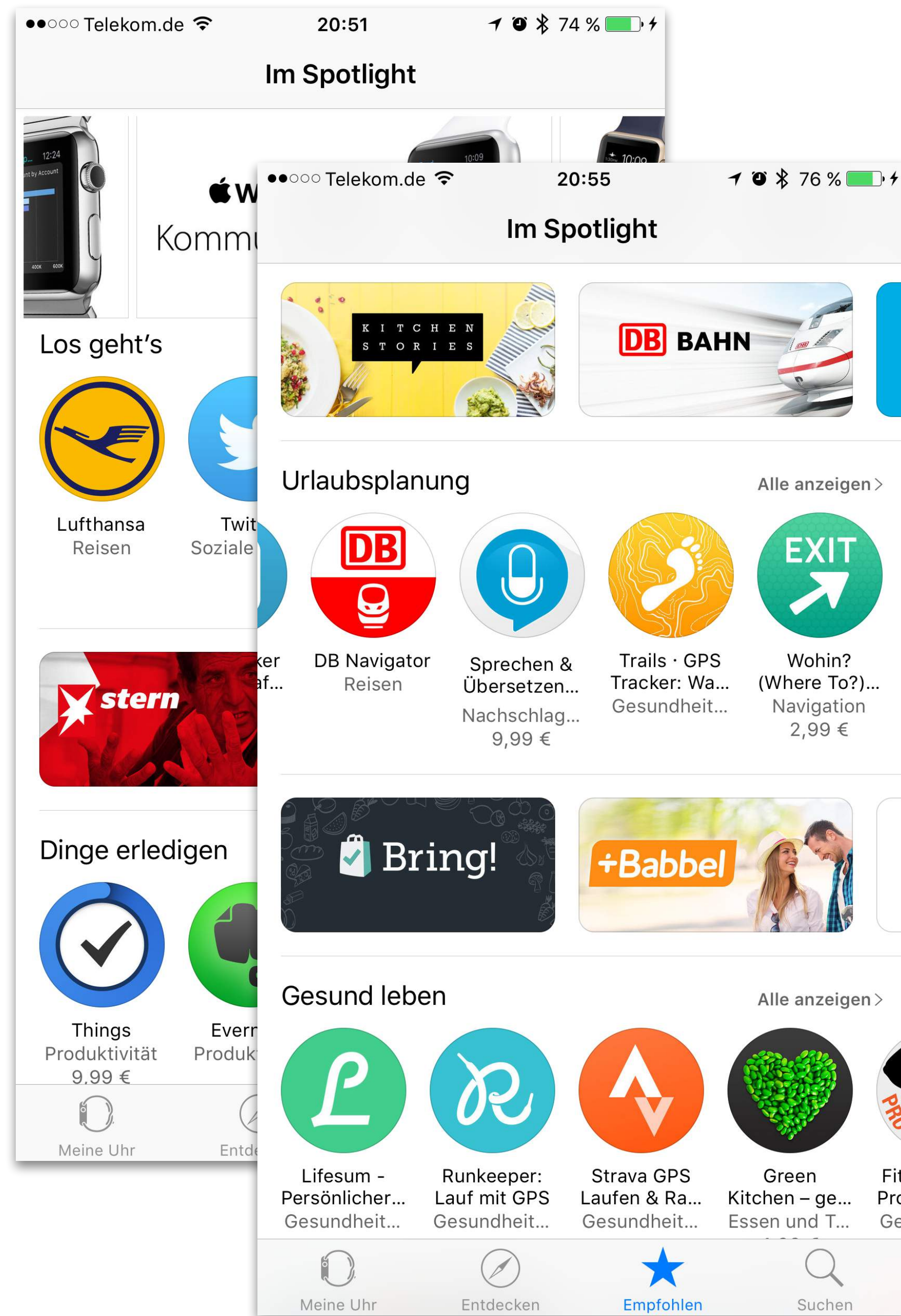
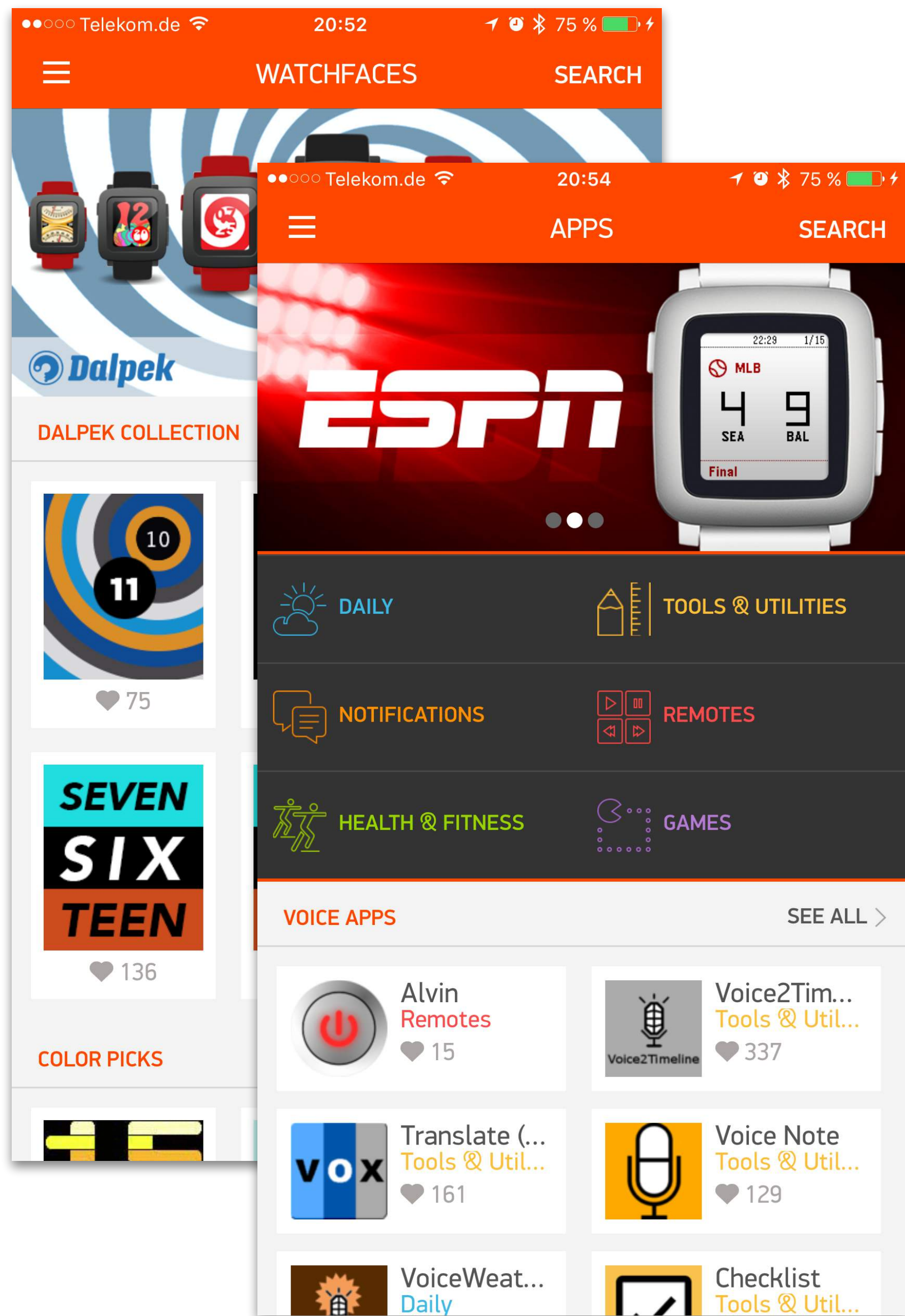
2015

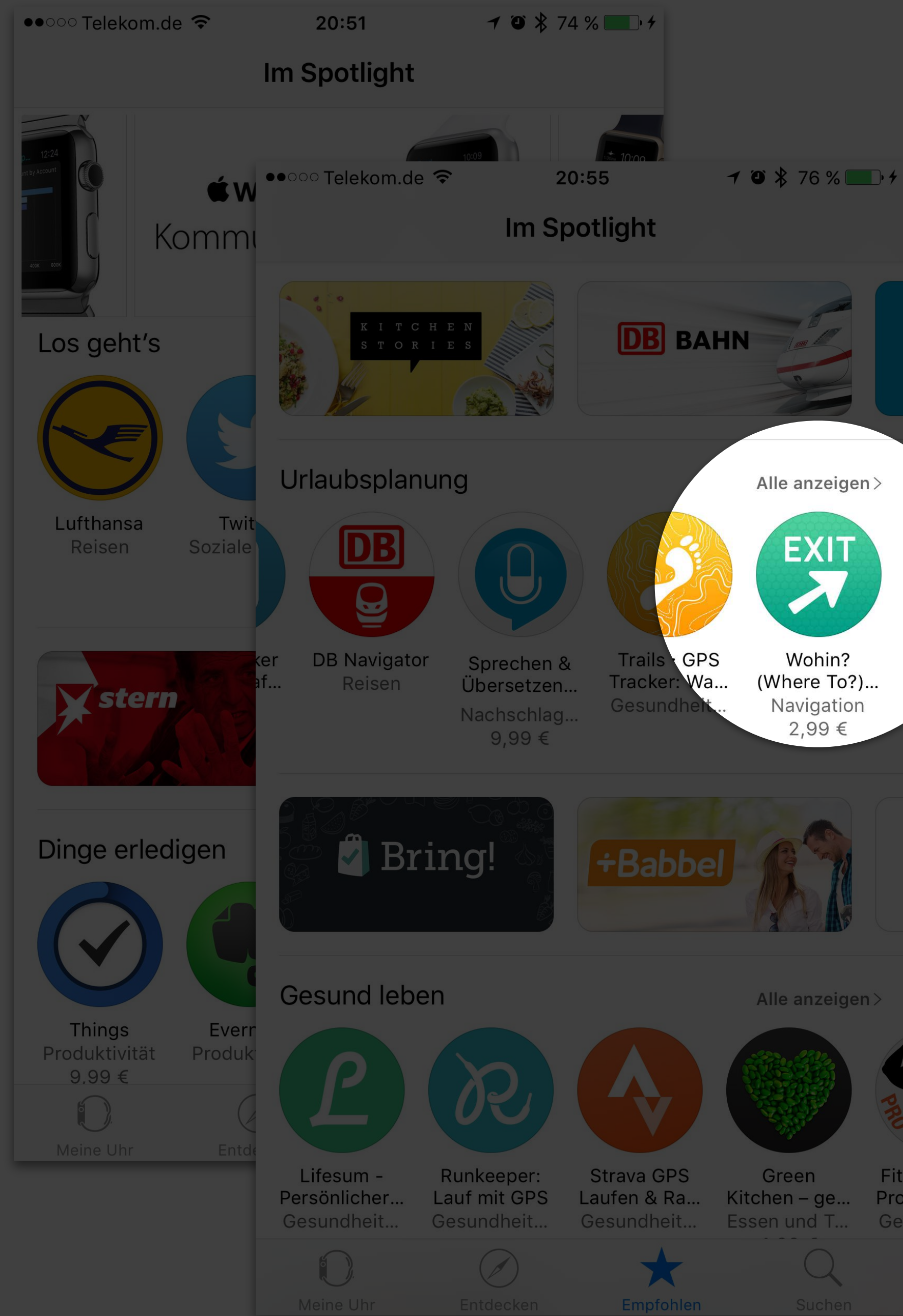
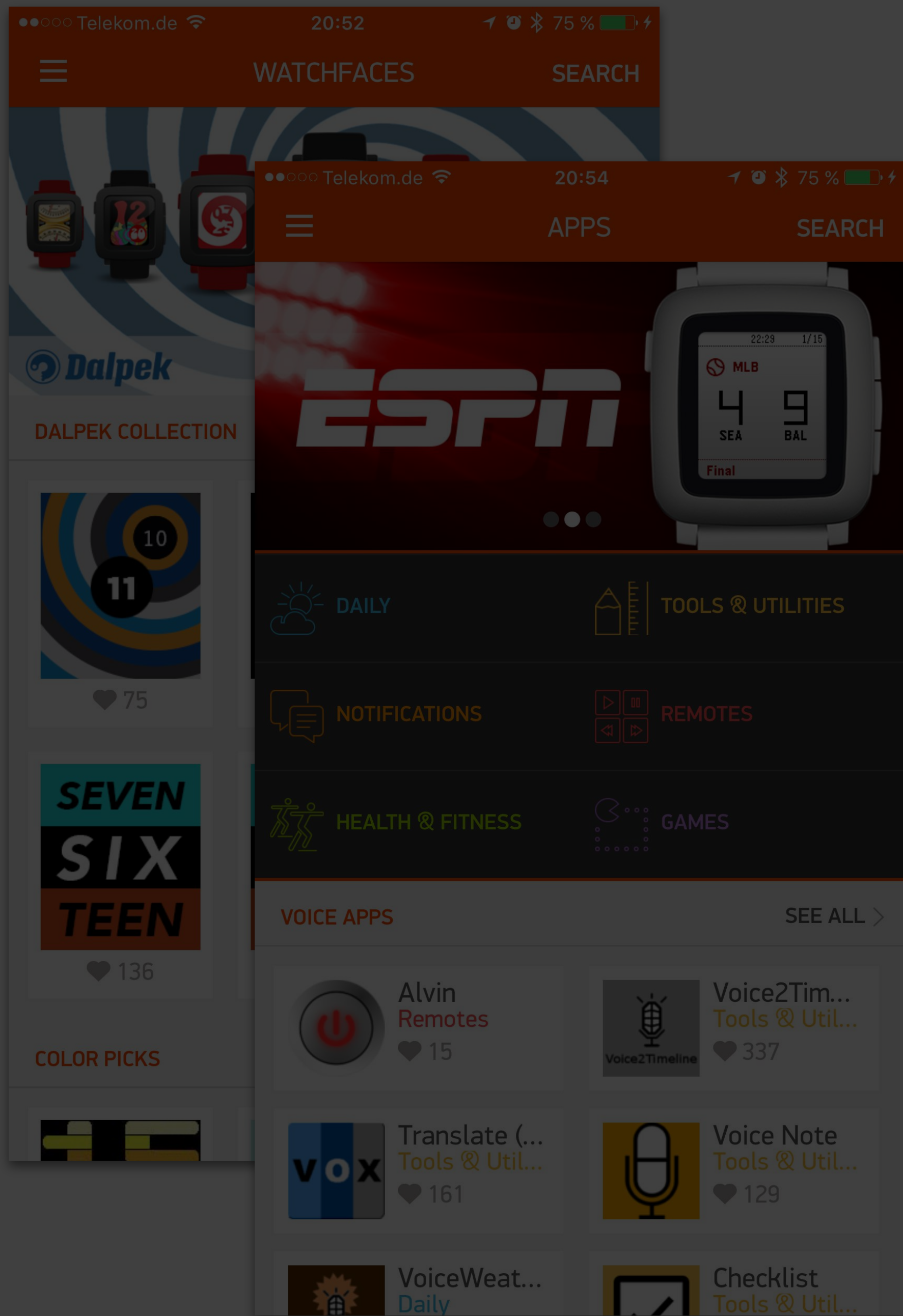
pebble

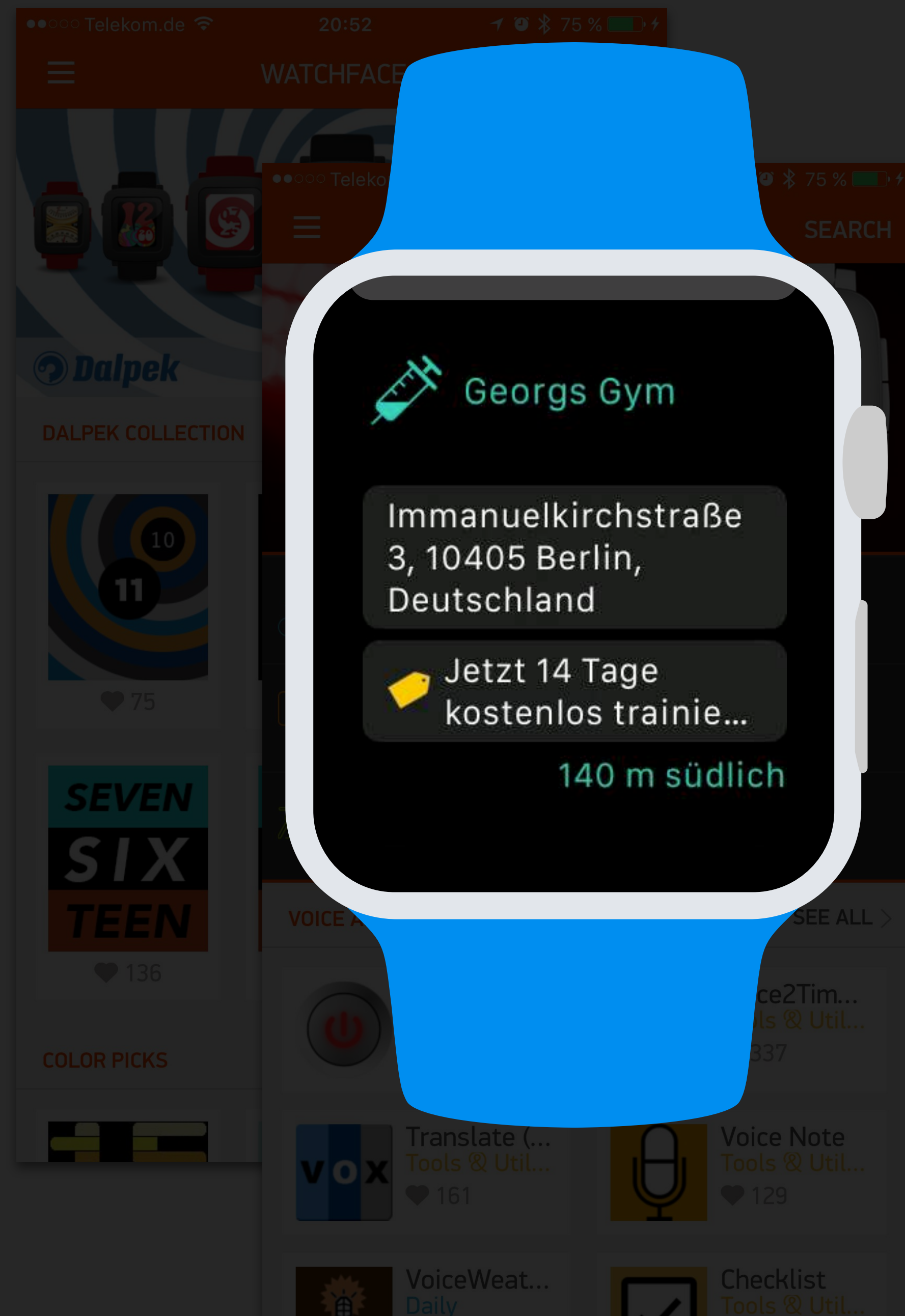


2015





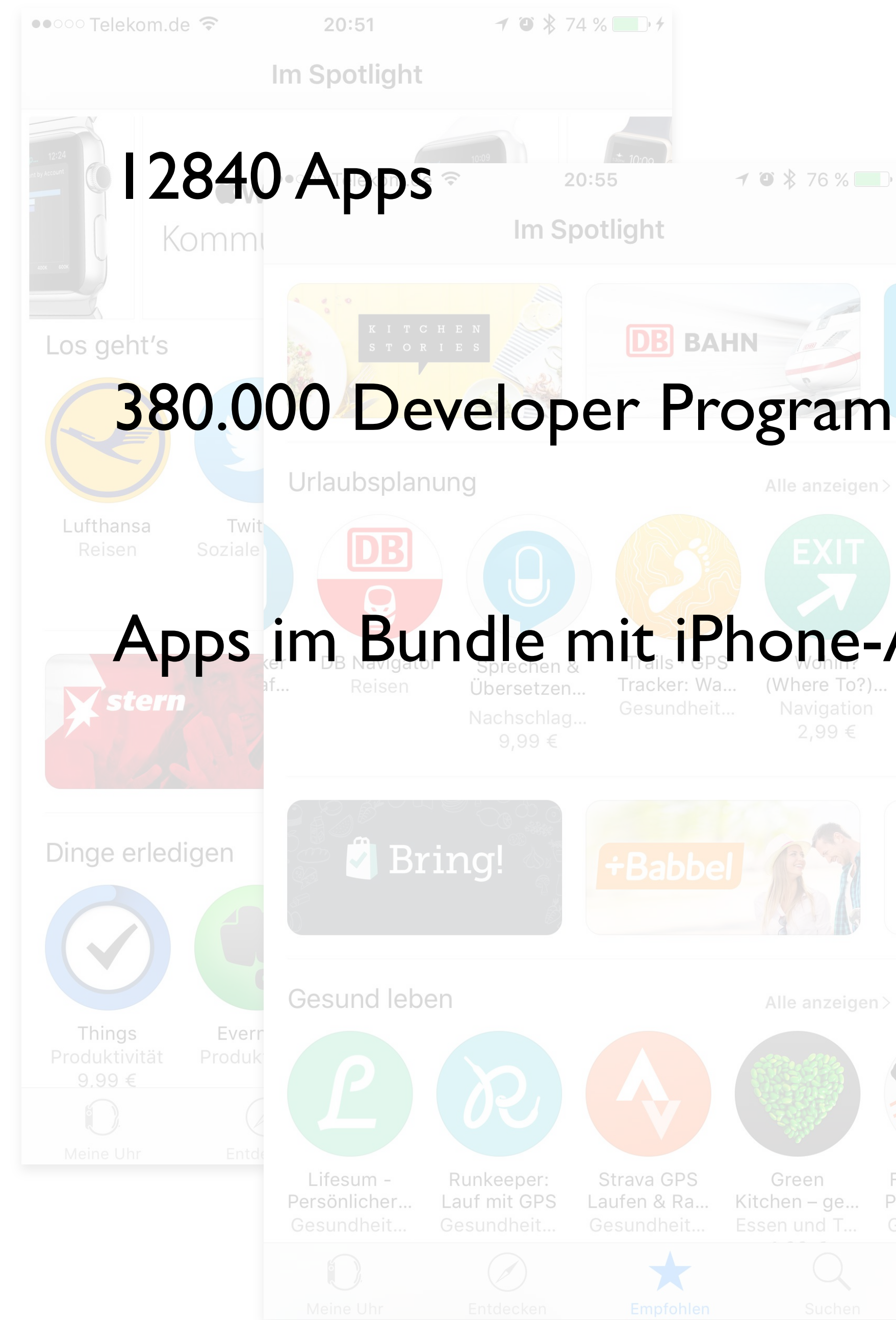
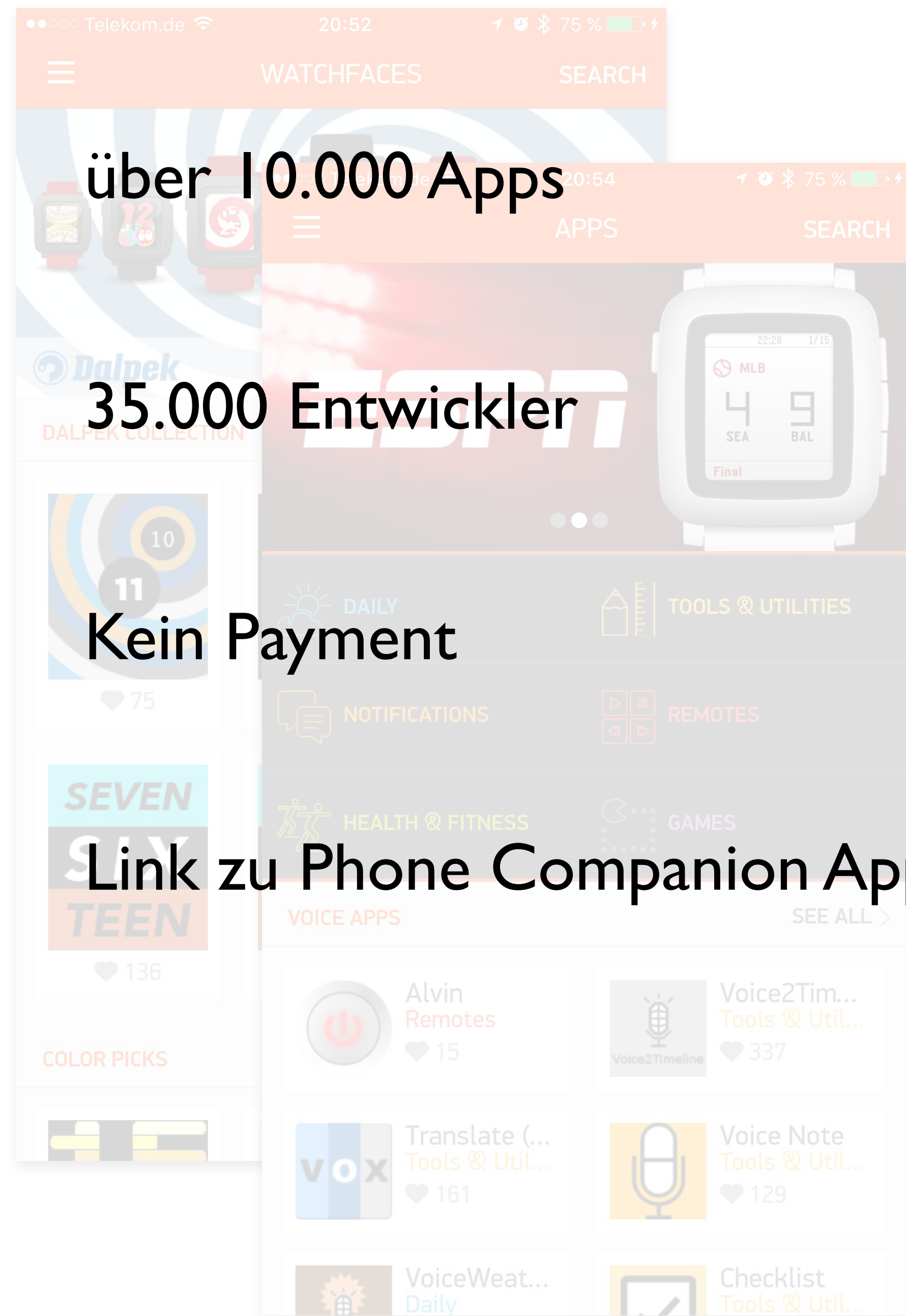




10,8 % aller User
haben Apple Watch

1,8 % aller User
haben Pebble



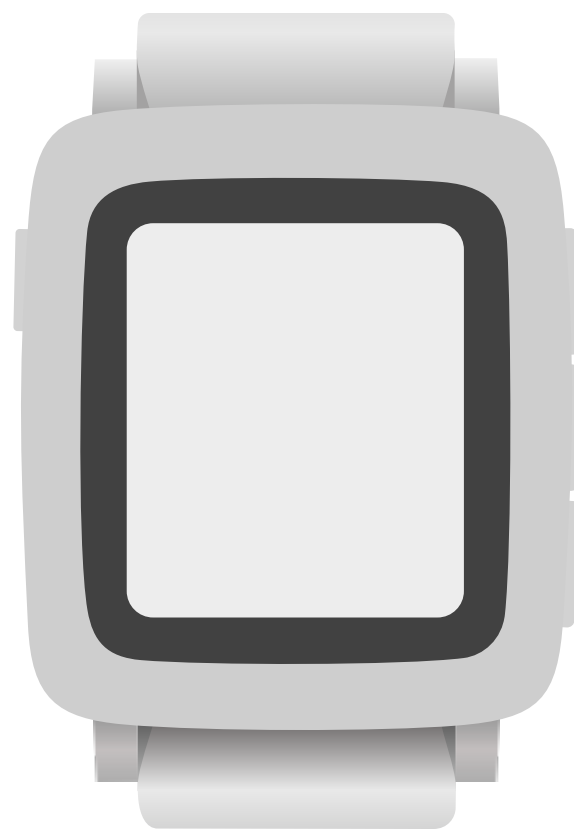


Plattformen

ePaper Display

64 Farben

wasserfest
bis 30 m



iPhone +
Android

Kompass

7 Tage
Batterielaufzeit

ab 250 €

Retina Display

3D Touch

Taptic Engine

Lautsprecher

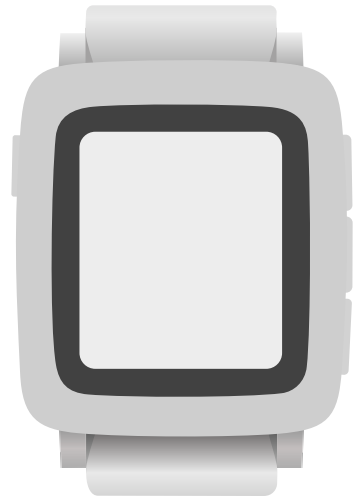
Siri



Digital
Crown

Pulsmesser

ab 400 €

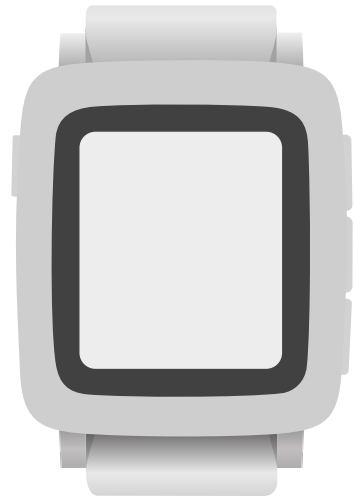


- Always On
- Indirekte Selektion
- Eingabe nur per Diktat
- Bilder möglichst als Vektoren

UX



- Hand heben für Interaktion
- Touch-Oberfläche
- Kontextmenü per 3D Touch
- Krone zum Scrollen und Einstellen



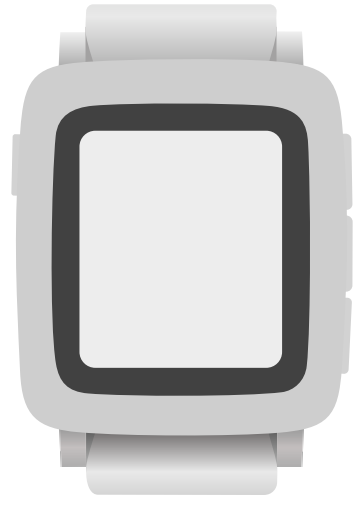
Möglichkeiten



- Apps und Watchfaces
- Timeline
- Background Jobs
- Bluetooth außer Reichweite, Batterie-%
- Wakeup
- Accelerometer, Kompass

- Apps und Complications
- Time Travel
- Notifications und Glances (Checks)
- Digital Crown (WKInterfacePicker)
- HealthKit, EventKit, Contacts, PassKit
- Accelerometer

Entwickeln

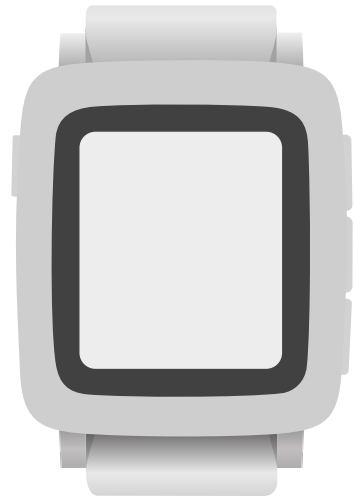


Programmiersprachen



- C
- JavaScript

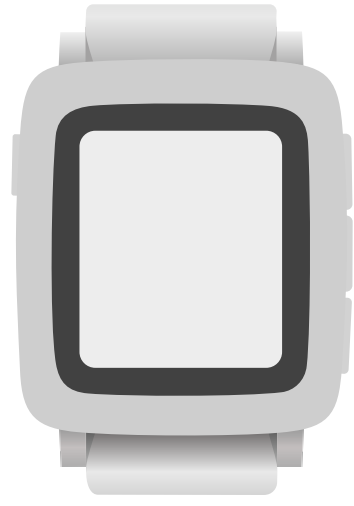
- Objective-C
- Swift



Fragmentierung



- Pebble OS 2.x
 - aplite, Pebble Classic (Steel)
 - Pebble OS 3.x
 - basalt, Pebble Time (Steel)
 - chalk, Pebble Time Round
 - Farbig / schwarz-weiß
 - Screen-Größe
- watchOS 1/2
 - 38 mm / 42 mm



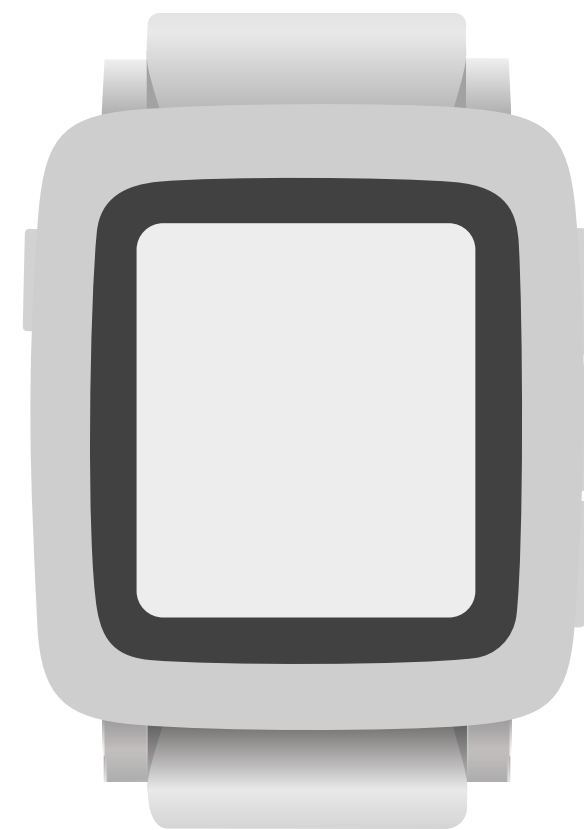
Entwicklungsumgebung

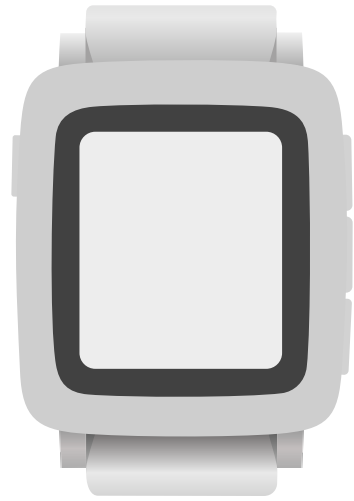


- Text Editor
- Xcode (mit „pebblex“)
- CloudPebble
- QEMU
- Xcode
- Simulator (Watch)

Demo

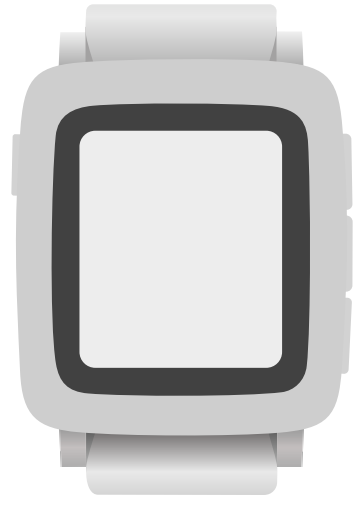
Kommunikation mit dem iPhone





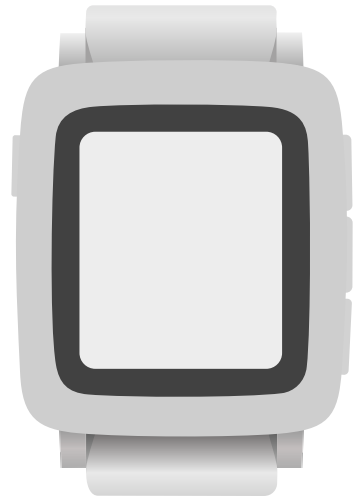
Kommunikation

- AppMessage, über Bluetooth-Link
 - Strings, Integers oder Data in Dictionary mit Nummern-Keys
- Gegenstelle auf dem iPhone:
 - iPhone Companion App (PebbleKit)
 - JavaScript in Pebble iPhone App (PebbleKit JS)



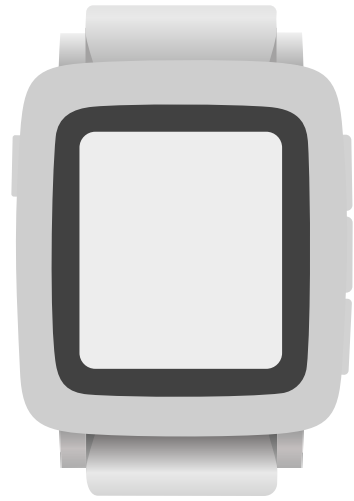
PebbleKit JS

- JSON-Requests
- Location
- Daten auf dem iPhone speichern
- Settings-Screens (Web View)



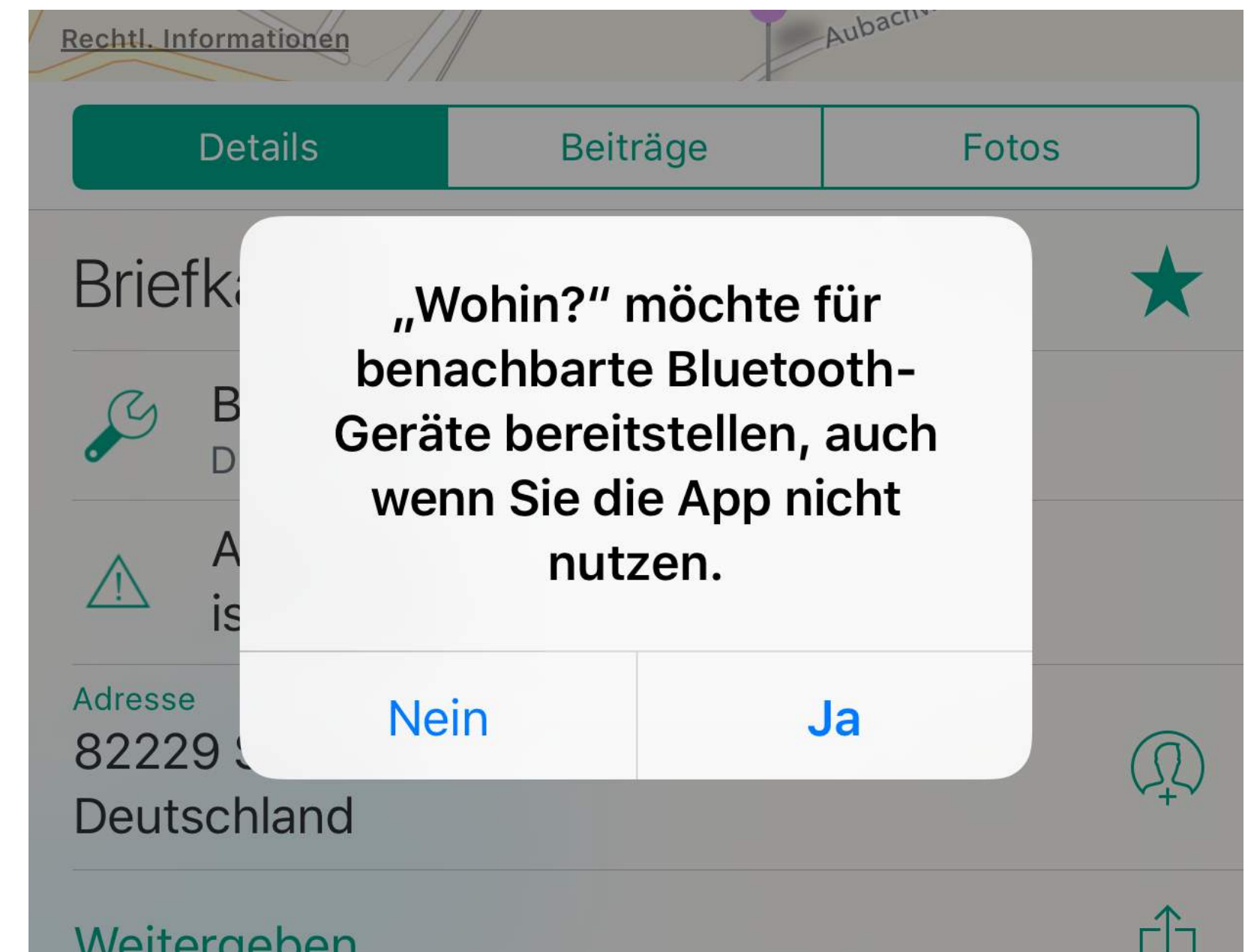
PebbleKit

- Connect und Disconnect
- Prüfen, ob Pebble-App installiert
- Senden und Empfangen von AppMessages
- Pebble Infos abfragen: Seriennummer, OS-Version



PebbleKit

- Whitelisting in iTunes Connect
- Bluetooth Background Modes in Info.plist
- BTLE ab PebbleKit und Pebble OS 3.0
- Permission Dialog wird angezeigt

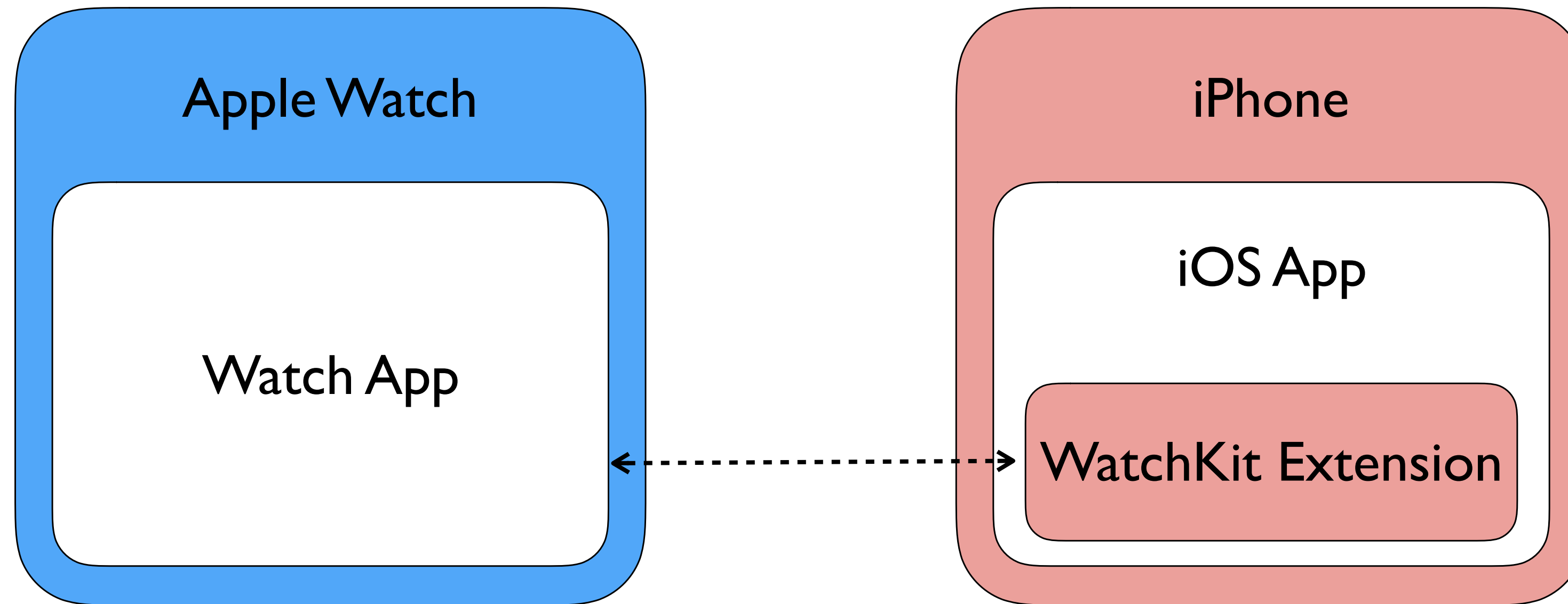




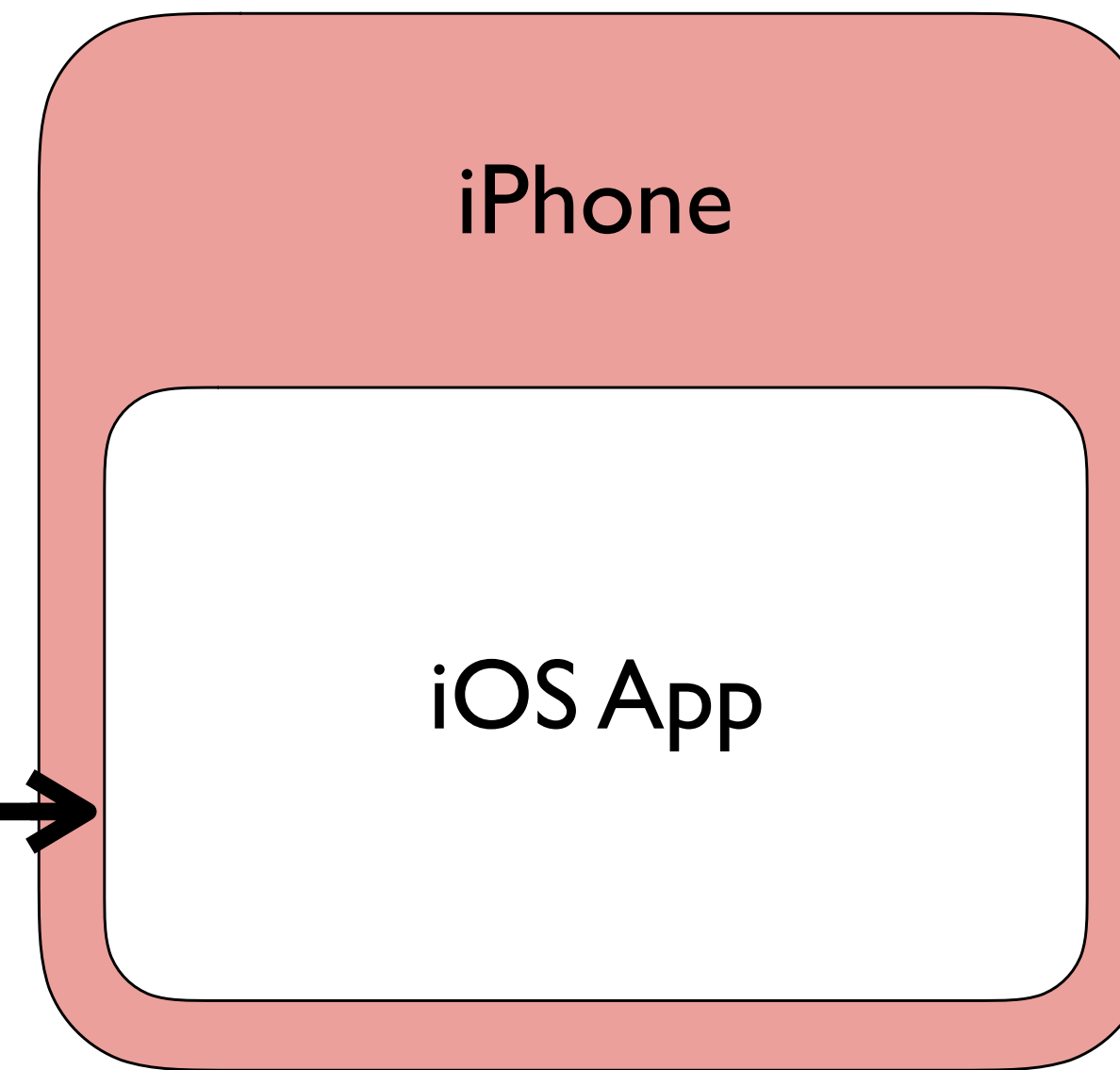
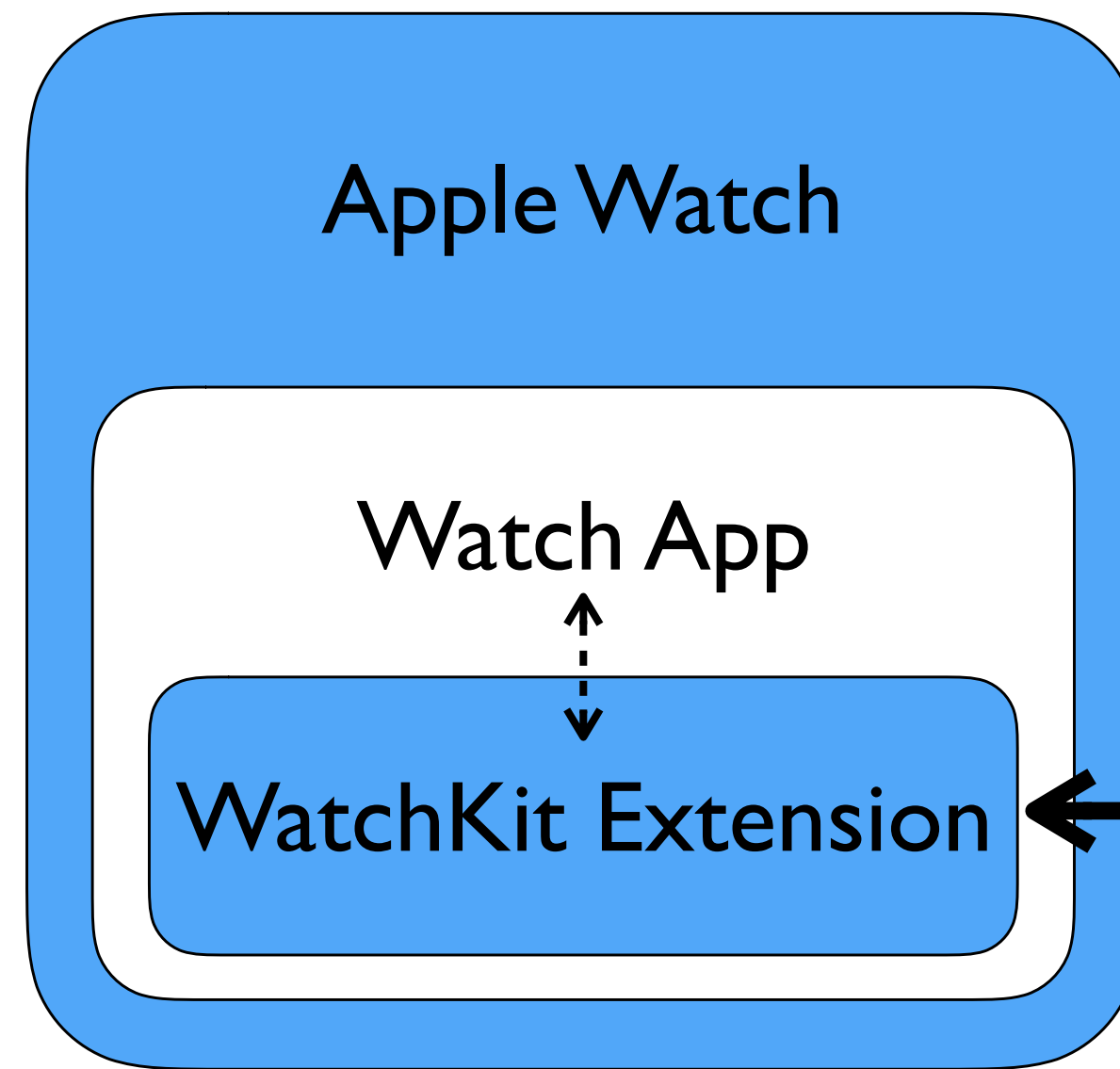
App-Architektur



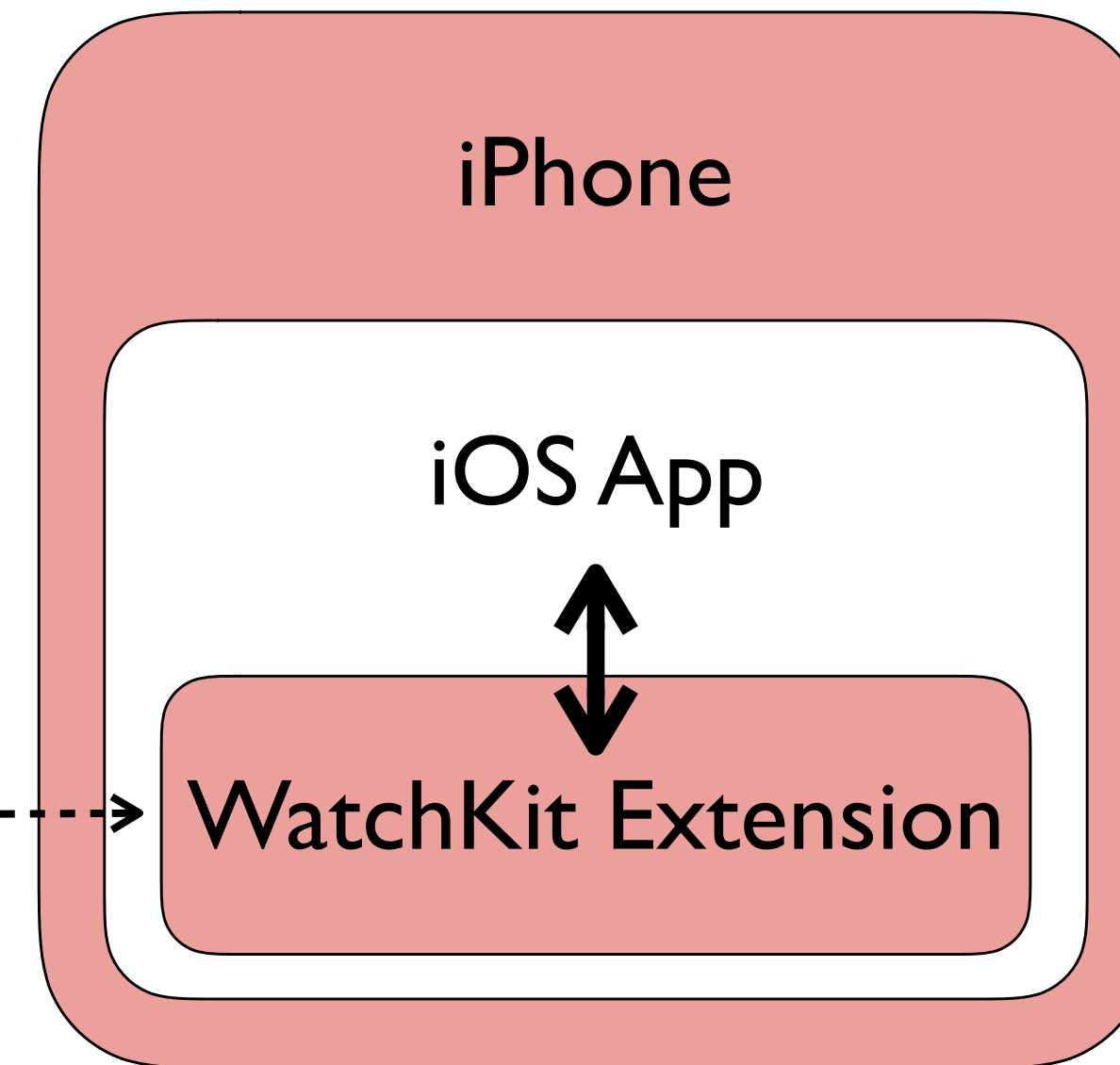
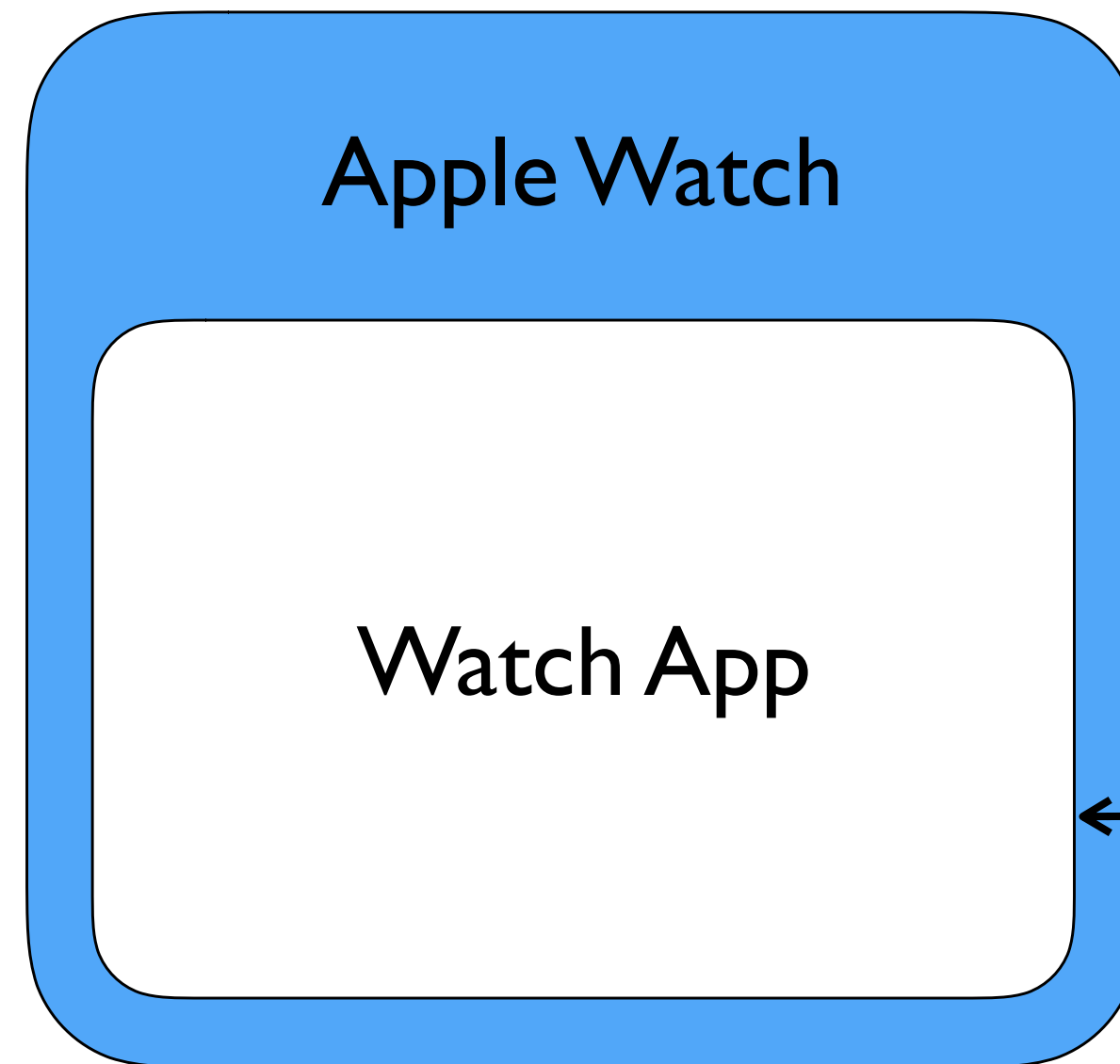
watchOS 1



watchOS 2



watchOS 1



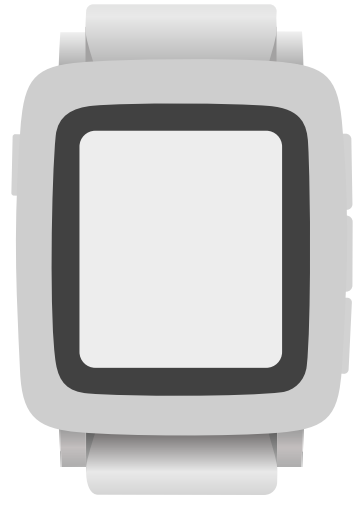
watchOS 2

- + Responsive UI
- + Erweiterte Möglichkeiten
- Beschränkte APIs
- Sync-Probleme

watchOS 1

- + Gemeinsame Daten
- + CPU-Power
- UI träge





Fazit

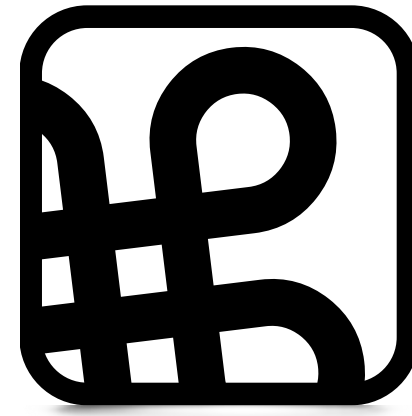


- Unterschiedliche Zielgruppen
- Unterschiedliche Möglichkeiten

Fragen?

Ortwin Gentz
@ortwingentz

Vielen Dank



Macoun