

# KEYSTONE ONE SDA

Mastering  
Responsive Design  
For  
Smart Photos

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# Quotes

- Albert Einstein
  - Everything should be made as simple as possible, but not simpler.
- Antoine de Saint-Exupery
  - Perfection is achieved, not when there is nothing more to add, but when there is nothing left to take away.

# Simple to Complex

- In the past
  - Users work on desktop computers only
  - Only one site for all users
- Transition
  - Most users work on desktop computers
  - Some users work on mobile devices
  - Two sites for distinctive users
- Today
  - Every user works on any device any time
  - One site for all users

# Mobile device challenges

- Small screens but big ppi
- Numerous screen sizes, resolutions and aspect ratios
- Touch screens and gesture, but no mouse and keyboard
- Additional operating systems and browsers
- Bandwidth and latency
- CPU and memory

# Principle

- Mobile first
  - Start with the smallest screen
  - Optimize for the smallest screen
  - Remember Einsteins quote
- Progressive enhancements
  - Add features as device capabilities increase
  - Diversity → complexity → effort → price
  - Remember Saint-Exuperys quote

# Conceptual Work

- Story Board
  - Screens and navigation are screen specific
  - Functionality is device specific
- Screen Design
  - Screen design is screen and device specific
- User Interaction
  - Mobile devices use touch and scroll
  - Other devices use stroke, click and page
  - Hybrid devices use all in combination

# Layout 1



Test Teaserbilder



CH Touri

Montgomery (1887-1976) - in der Schweiz

**SPOR**

Final: ZSC - HC Lugano



Giro d'Italia

sel & Turbo



Alleinerziehende im All

k (\*1978)



Sabrina Jaquet (\*1987)



Johnny Depp (\*1963)



## NEWS



Test Teaserbilder



CH Tourismus\_Graubünden



"Night" by Bernard Descamps (VU)



Bernard Montgomery (1887-1976) - in der Schweiz

## SPORT



Grand Slams 2017 Herren



# Layout 2

- Layout is the foundation
  - Simple and consistent layout based on adapted content and functional blocks
  - Layout depends on screen size and device type
  - Diversity → complexity → effort → price
- Style builds on the layout
  - Colors, fonts, icons, spacing and padding are the building blocks
  - Styling depends on screen size and device type



# Images 1



# Images 2

- Big ppi → large image sizes needed
  - Computer monitor → ~100ppi
  - Tablets and smart phones → up to 800ppi
- Different screen sizes → different image sizes
  - Bandwidth / image size → response time
  - More compression → lower image quality
- Different screen aspect ratios → different images
  - Cropping automatically may work
  - Not every image works with all aspect ratios

# Image Collections 1



# Image Collections 2

- Layout options
  - Grid, like Google, like ...
- Responsive layout
  - Variable number of columns, variable image sizes.
- Paging vs scrolling
  - Paging is simple to implement but not convenient, scrolling is complex to implement but more convenient at least on mobile devices. Even more complicated is to provide both for the respective devices.
- Progressive vs on demand
  - Better use of bandwidth as visible images will be loaded first. On demand will load image when it enters the view port, progressive will load non visible images in background.

# Forms 1

Alle ▼

KEYSTONE verfügt über ein M  
zahlreichen Freelancern, v  
Ereigni

**NEWS**  Test Teaser

Bernard Montgomery (1887-1976)

### Erweiterte Su

**Medientyp** [ ]

**Periode** [ ]

Ab [ 01.01.1900 ] Bis [ 18.05.2018 ]

**Lizenzart** Ro

**Benutzung** Ko

**Lizenzart**

Royaltyfree

Rights Managed

## Erweiterte Suche



### Medientyp

Alle ▼

### Periode

Alle ▼

Ab [ 01.01.1900 ] Bis [ 18.05.2018 ]

### Lizenzart

Royaltyfree

Rights Managed

# Forms 2

- Large vs small screens
  - Different layouts needed due to space constraints
- Responsive layout
  - Rearrange form input fields, change input field types or hide input fields is complex because of different behaviour for the different layouts
- Physical keyboard vs virtual keyboard
  - Different entry and selection concepts needed due to the limitation of virtual keyboards on limited space

# Tables 1



322941876

14.05.18



291956219

08.05.18



207297136

08.05.18



236753452

04.05.18

**Vorschau**



**ID**

79339862

**Datum**

15.05.18

**Lizenztyp**

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## Tables 2

- Large vs small screens
  - Different layouts needed
- Response layout
  - Hide columns, compress columns, modify layout from table to card types
- Paging vs scrolling
  - Paging is simple to implement but not convenient, scrolling is complex to implement but more convenient at least on mobile devices. Supporting both for both types of devices is even more complex.
- Upfront or on demand
  - Loading table content while scrolling down a page is much more complex than upfront loading the page for paging.



# Conclusion

- Concise concepts are even more crucial
- Start with the smallest device
- Add mandatory features only
- Keep feature list identical for all devices
- Keep the design simple