



ArcGIS Online meets Augmented Reality

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Welcome!

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“Augmented Reality is one of the Top 10 strategic IT technologies of our time.” – *Gartner Inc.*

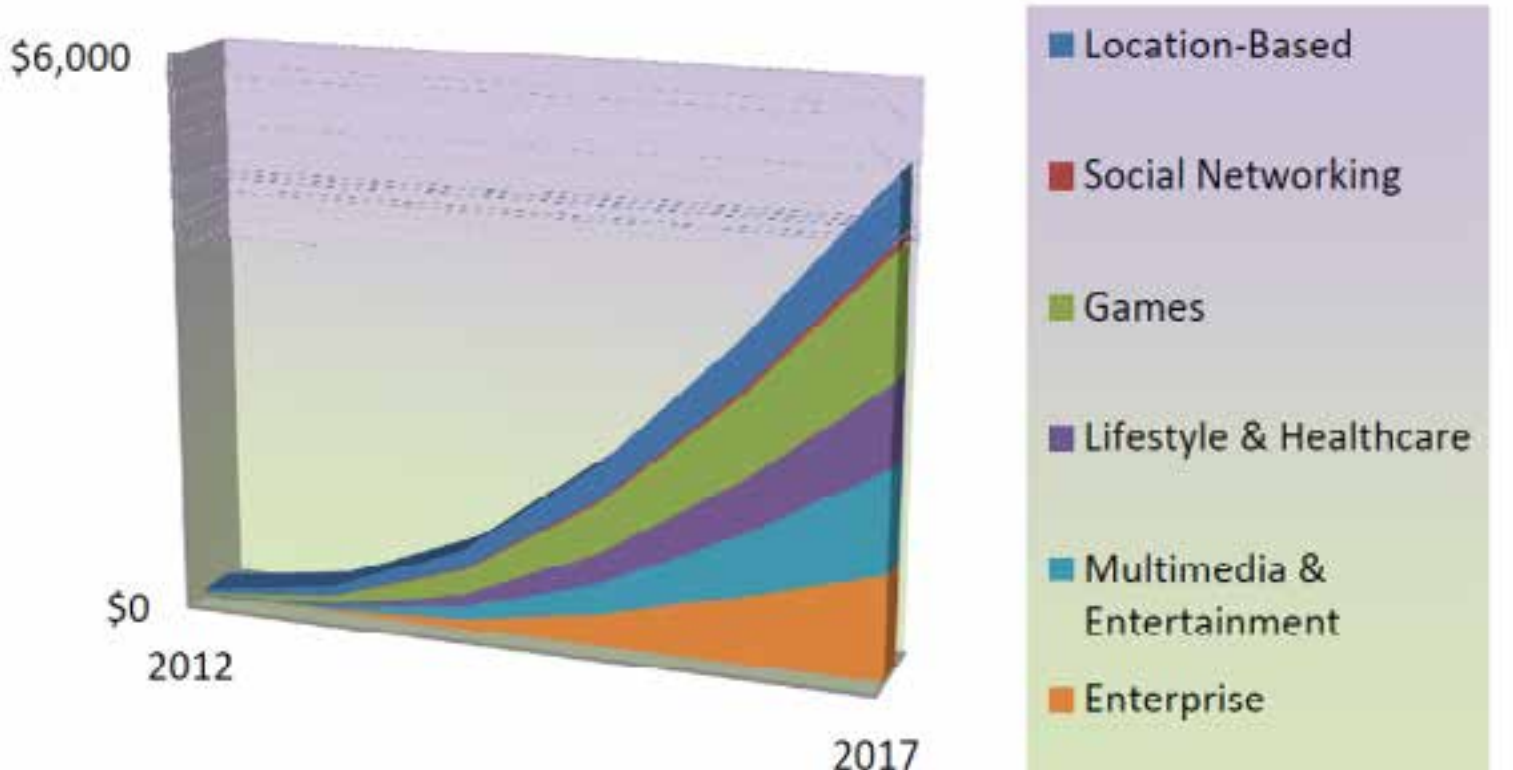


Augmented Reality (AR)

Reality digitally enhanced



The AR Market



Source: Juniper Research <http://juniperresearch.com/shop/viewwhitepaper.php?whitepaper=189>

Juniper Research forecasts \$1.5 billion revenue stream by 2015

LEGO Digital Box



Interactive manual for the Audi A1



Augmented Engineering



Interactive Catalog



Why is AR interesting to us?

- **Geodata by definition has a spatial reference**
- **AR helps to display geodata in a new, intuitive way**
- **AR makes data visible, that normally would be hidden**
 - **Planning scenarios**
 - **Physically hidden features like tubes**
 - **Historical data**

High potential for our users

Utilities



Route Planning



Flood and Fire Risk



Flood Maps



Disaster Response Planning



Situation Awareness



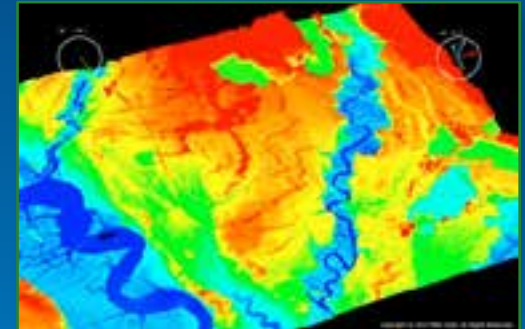
Spread of Disease



Transmitter Location



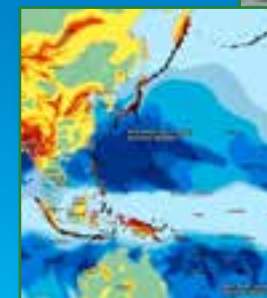
Geomorphic Analysis



Volcanic Hazards



Risk Areas



Feasibility Study

- **Realize a mobile app that provides an alternative live view**
- **Enrich ArcGIS platform with AR technology**
 - **Use data hosted in ArcGIS infrastructure**
 - **Use Runtime SDK to realize client app**
- **Use geo-analysis functionality**

metaio

- **Leading AR company**
- **Based out of Munich and San Francisco**
- **Junaio out-of-box app for Android and iOS**



metaio
SDK

- **Develop native AR Apps for iOS, Android and PC**
- **Object recognition for 2D and 3D Objects**
- **SLAM and Visual Search technology**
- **3D Rendering engine**

















How does the integration work?

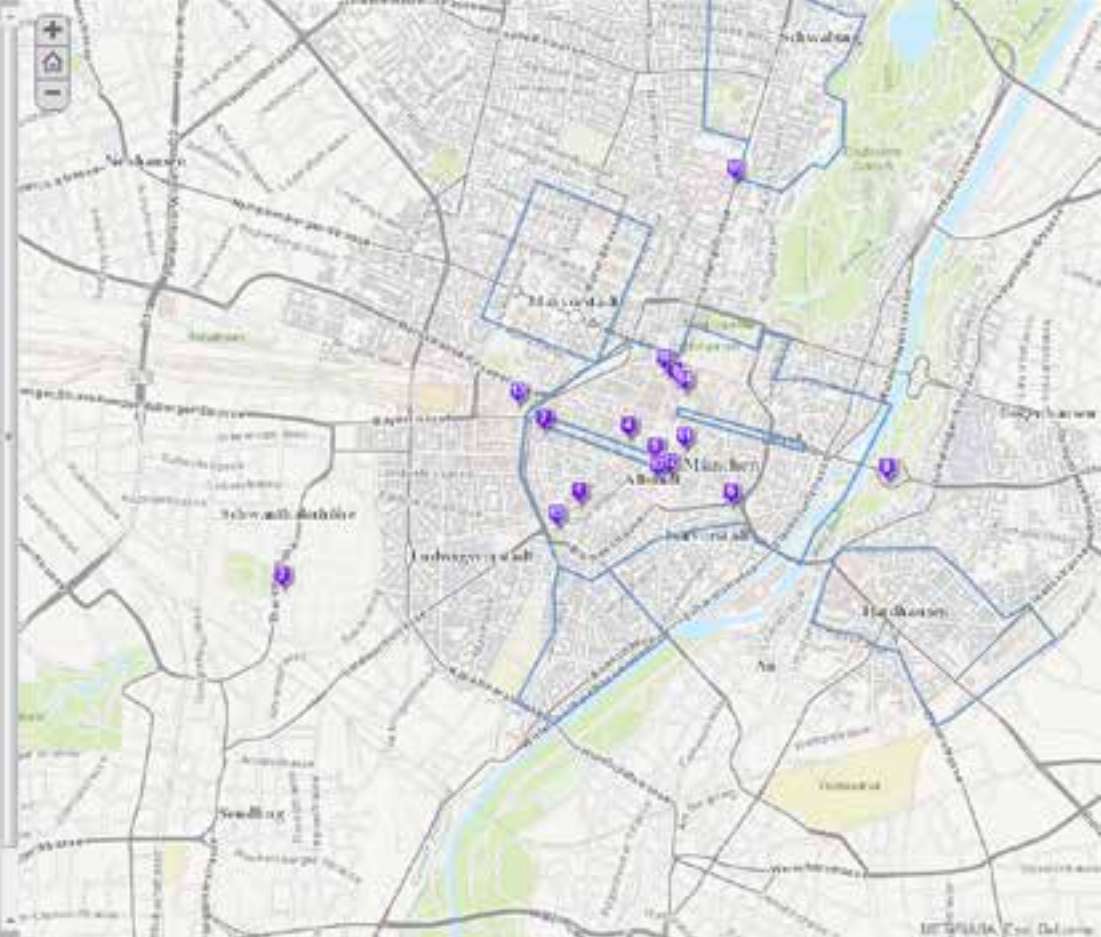


Story Map „MyMunich“

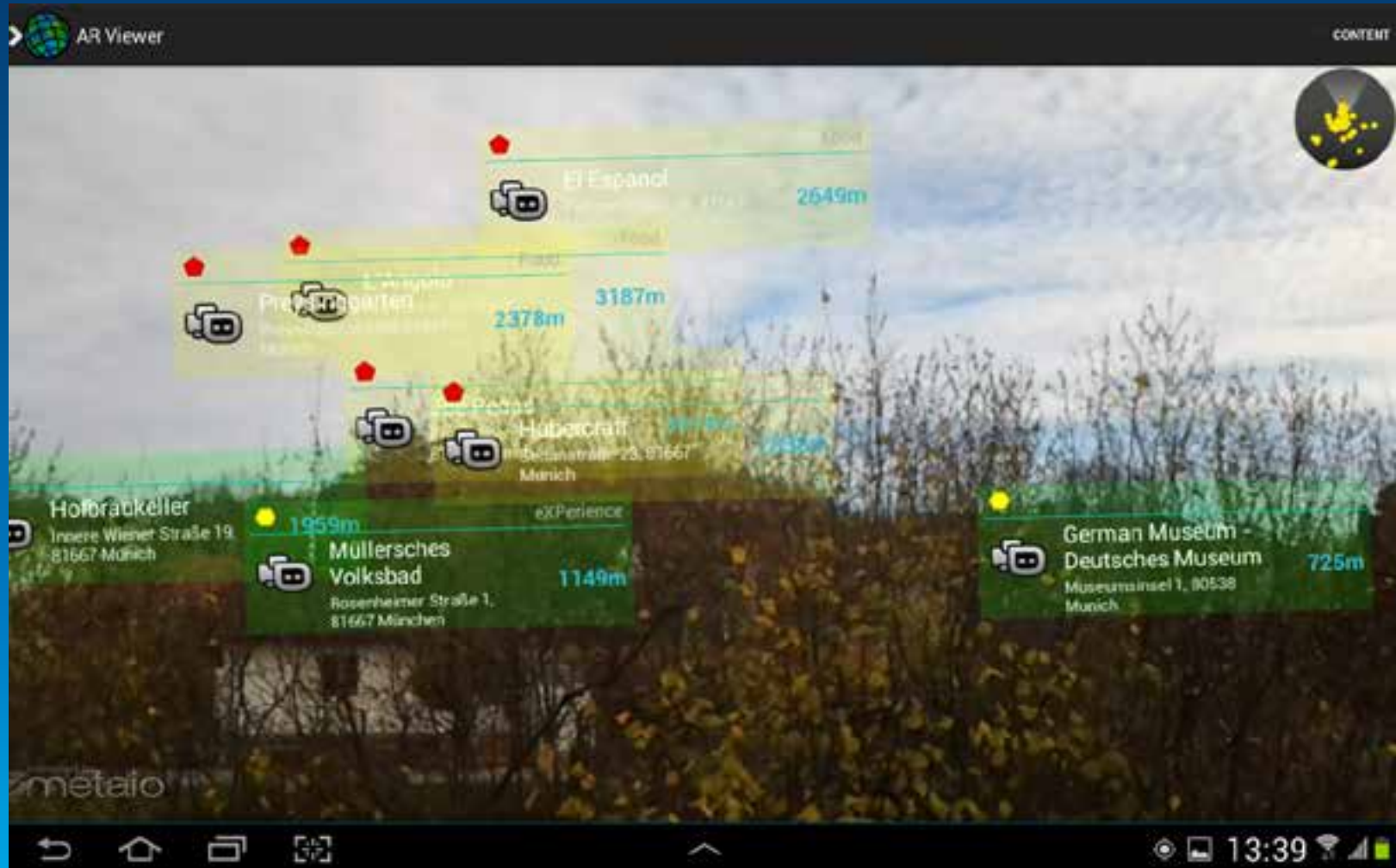
MyMunich
Visiting Munich, Munich for families

Architecture Experience Food + Hotels Parks + Squares

 1 Munich Town Hall - Rathausring	 2 Marienplatz	 3 Ludwig of Our Lady Procession
 4 Feldherrnhalle	 5 Nymphenburg Palace	 6 Karlsplatz
 7 Barrackenquartier	 8 New Town Hall - Rosen Rathaus	 9 Old Court - Altes Hof
 10 Old Town Hall - Altes Rathaus	 11 Palace of Justice - Justizpalast	 12 Residenz
 13 Barrackenquartier	 14 Barrackenquartier	 15 St. Peter's Church - St. Peter
 16 Barrackenquartier		



Demo



What's next?

- **Render geometry types other than points**
- **Interact with underlying features**
- **Offline-mode based on ArcGIS release 10.2.1**
- **Render 3D data served from Esri technology**
- **Increased positional accuracy**
 - **Match with 3D reference data**

Thanks!

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Understanding our world.