
m scape

Projektgruppe: Lab on Mobile Gaming

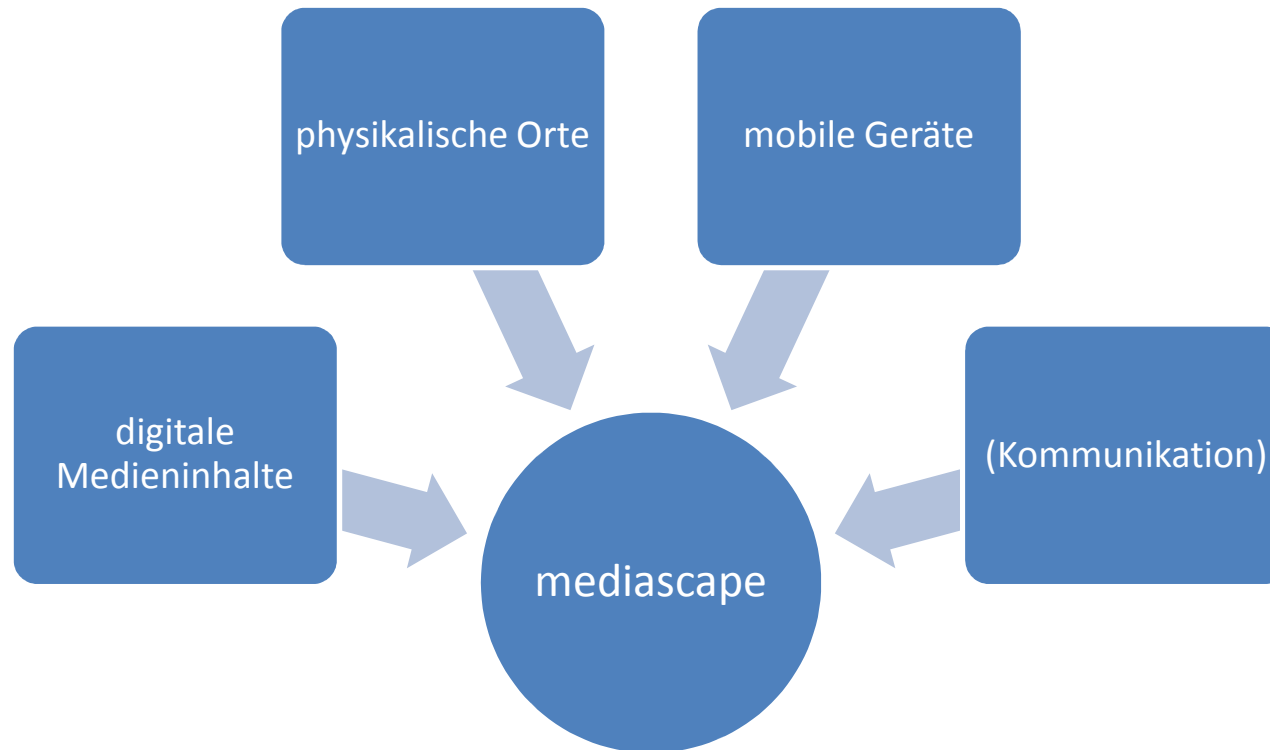
Daniel Kress

Mobile Bristol Framework

- mscape ist eine Weiterentwicklung des Mobile Bristol Frameworks
- Benutzerfreundlichkeit
- Komplexere Funktionalität
- Modularität
- Große Verbreitung
- Viele unterschiedlichste mobile Anwendungen realisierbar
- Kommunikation zwischen mobilen Geräten

Was ist ein mediascape?

- Verbindung von digitalen Medieninhalten mit physikalischen Orten

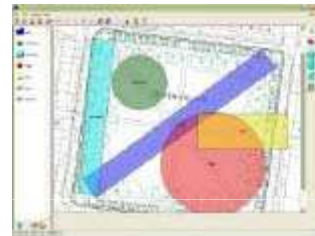


MBML (Mobile Bristol Markup Language)

```
<script>
  <media>
    <audio name= "harp " url="http://myserver.com/harp.mp3" />
  </media>
  <layout>
    <region name= "r1 ">
      <circle x="358543.00" y="172523.00" radius="20.00" />
      <onEnter>
        <playMedia media="media$harp" volume="100" loop="true"/>
      </onEnter>
      <onExit>
        <stopMedia media="media$harp"/>
      </onExit>
    </region>
  </layout>
</script>
```

MBML Sprachkonzepte

- Event
- (Event)Handler
- Aktion
- Ressourcen
- Skript
- Projekt



*desktop
authoring
tool*

produces

```
<region name="northwest">  
  <circle x="123" y="456" range="20"/>  
  <onEnter>  
    <playMedia media="harp"/>  
  </onEnter>  
</region>
```

*application
script*

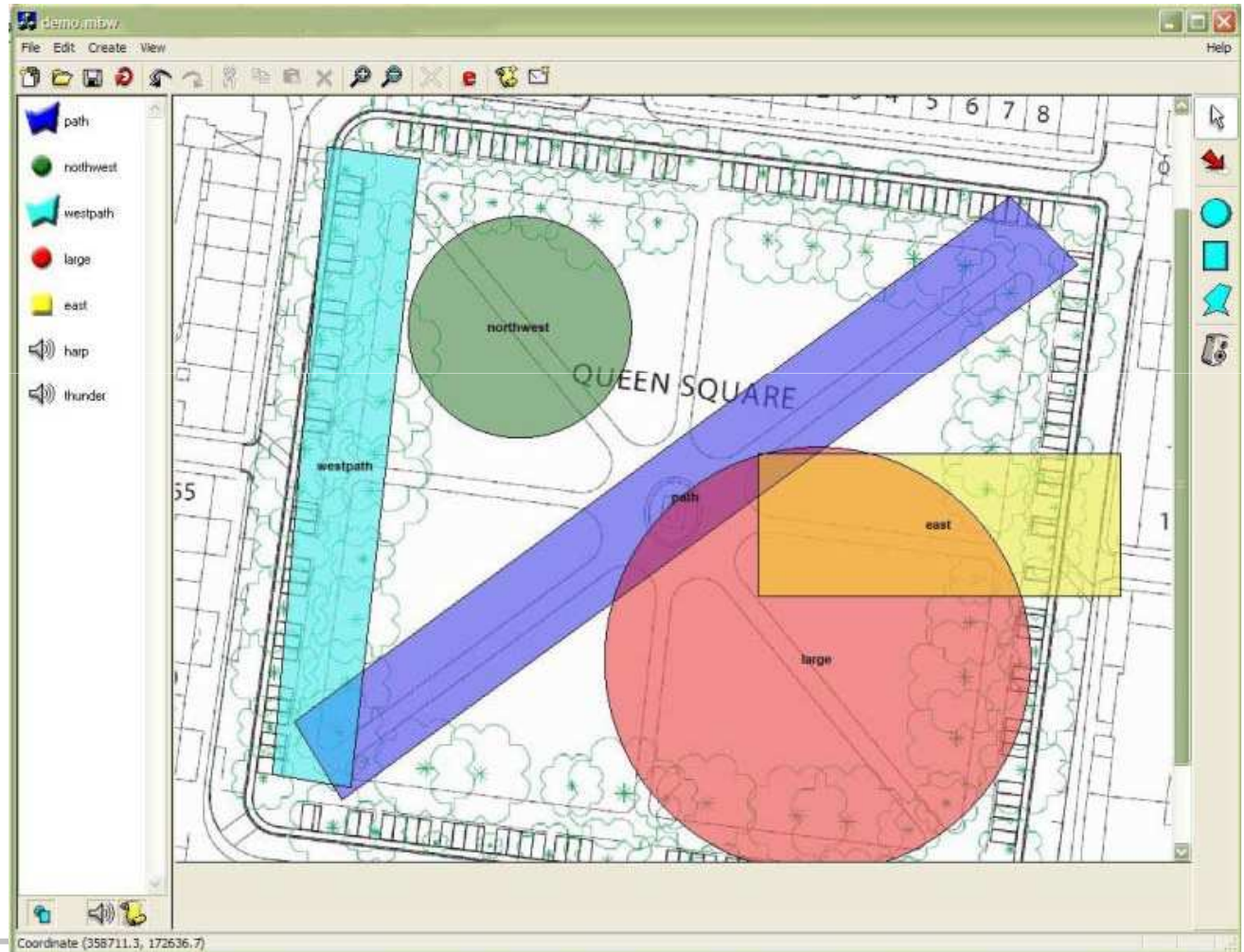
downloaded to



*context
aware
devices*

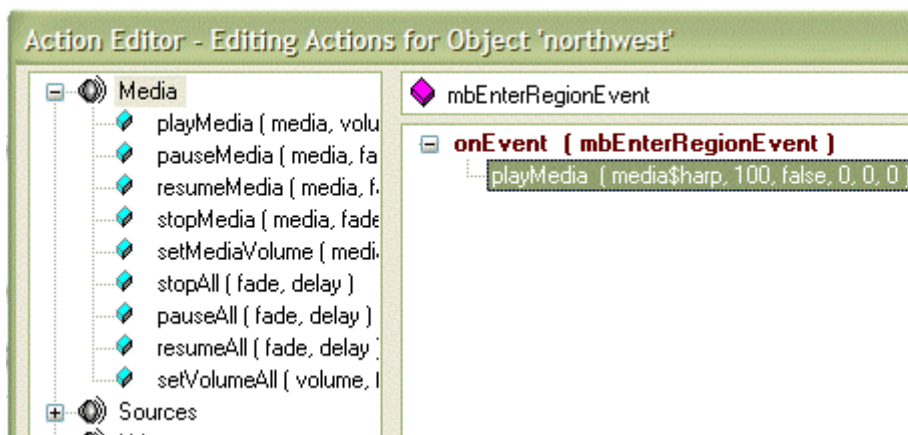
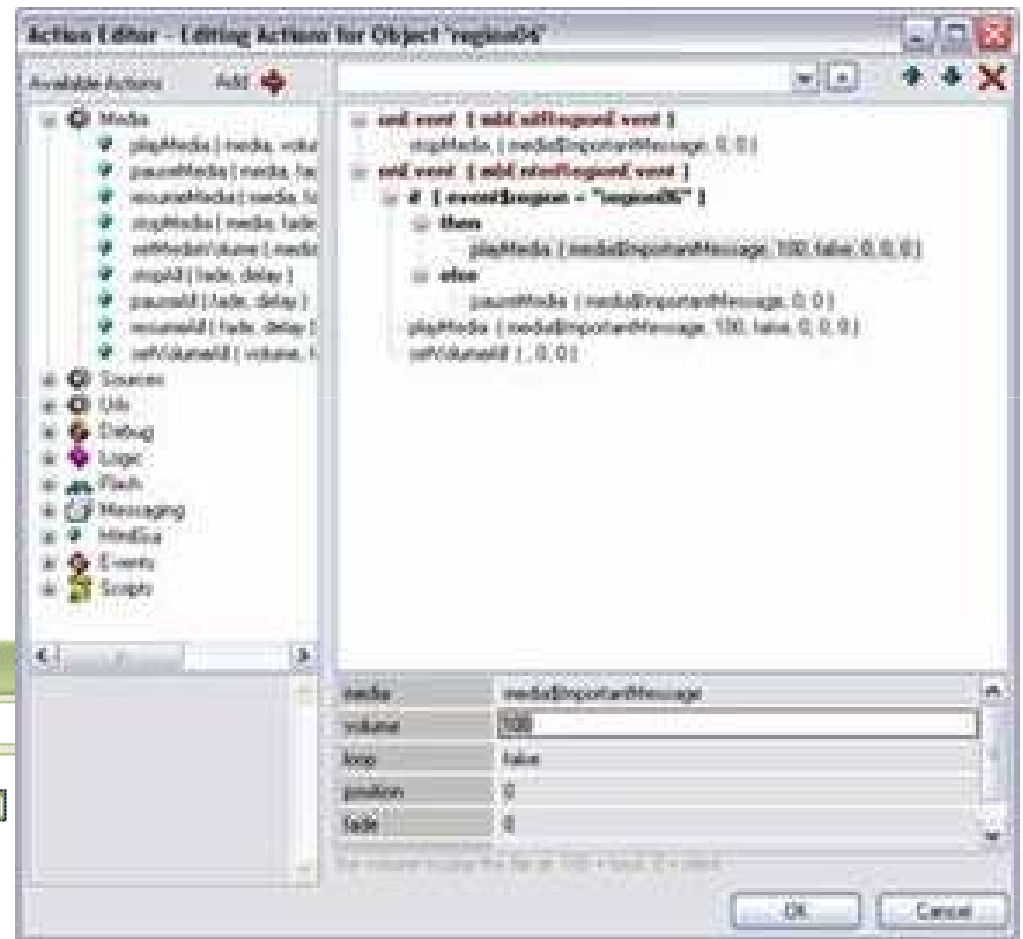
Mobile Bristol Tools

- Medien Manager
- Layout Editor



Mobile Bristol Tools

- Point&click Verhaltens Editor
- Ein Programmiereditor
- Emulator
- Publisher



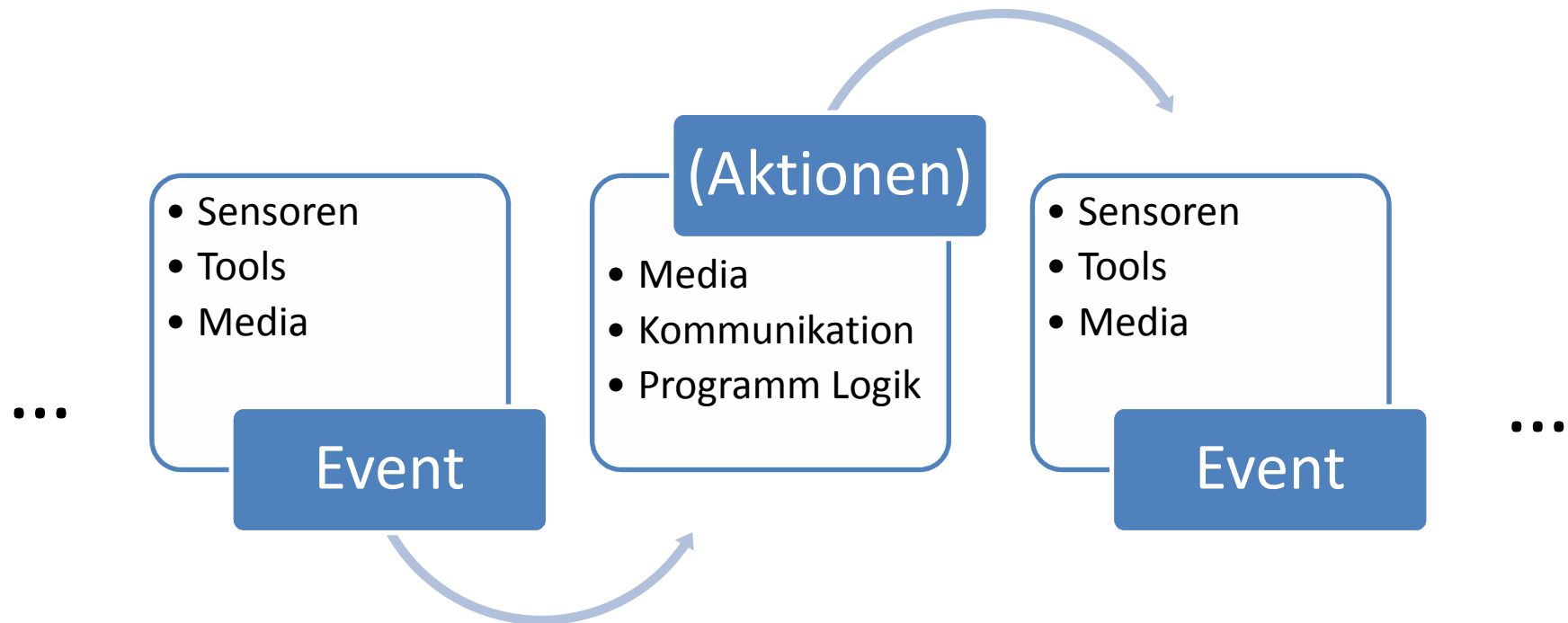
Änderungen in mscape

- MBML Sprachkonzepte → C# Objekte
- (Eigebettete) Skripte in MBML → Code in C#
- Point&Click Verhalten → editieren in C#
- Event Nachrichten → http Server/http Requester
- Publisher → User Upload

Mscape Framework

- mscape library:
Verwaltung und Speicherung von mediascapes
- mscape tester:
Emulation von mediascapes
- mscape player:
Übertragung von mediascapes auf ein mobiles Gerät
- mscape maker:
Erstellung der mediascapes

Erstellung von mediascapes



Events

- GPS
OnGotFix, OnLostFix, OnLocation, OnNewAngle, OnNewSpeed
 - Playlist
OnItemComplete, OnItemAdded, OnStarting, OnFinished
 - Http Requester
OnResponse, OnResponseFailed
 - Mstate
OnEnter, OnLeave
- Besonderheit: Mstate.Enter();
- ...

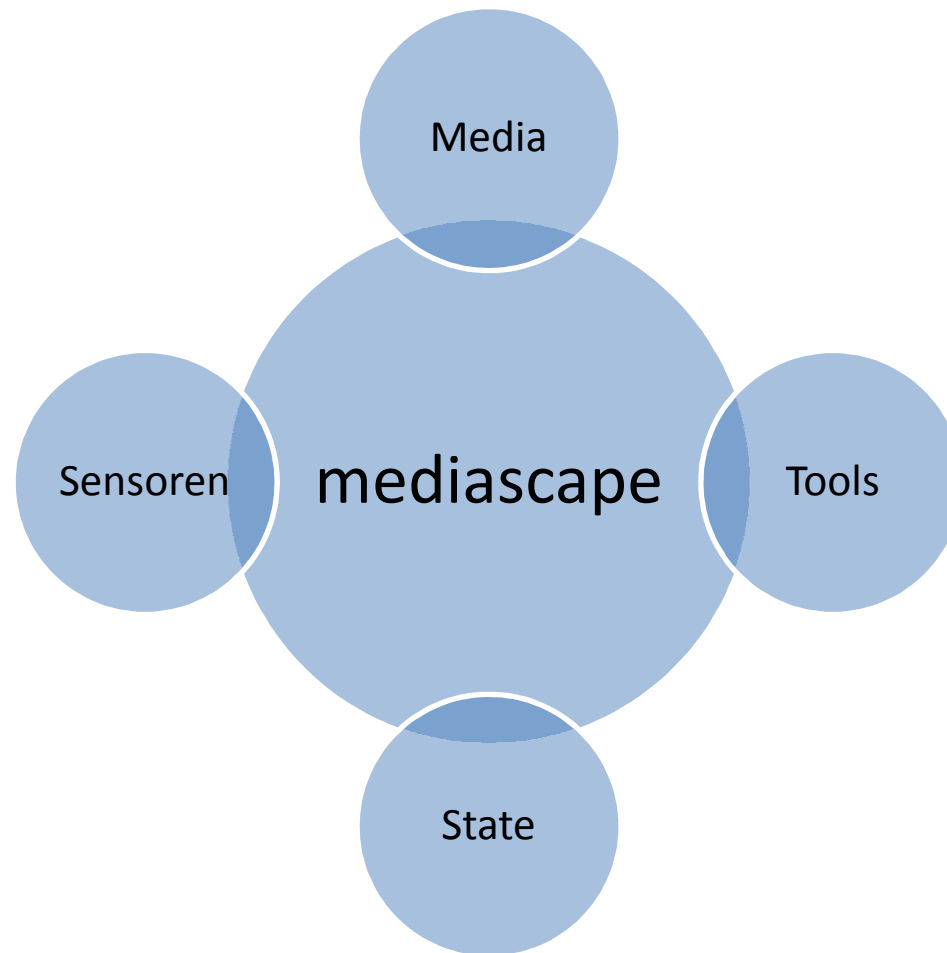
Skripte(Aktionen) in mscape

```
if(IncomingData.FindTextNamed("response") == "ok") {
    Logger.Log("init (communication):" + IncomingData.FindTextNamed("response"));
    menu.Show();
    communication.Start();
}
else {
    Logger.Log("Error type (communication):" + IncomingData.FindTextNamed("err"));
    exit1.Show();
}

onscreenkeyboard2.Unload();

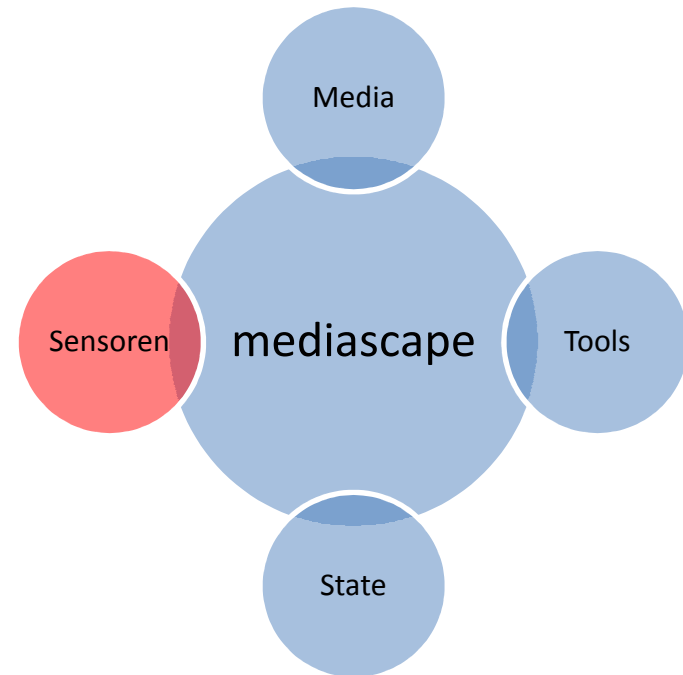
//Log for server debugging
Logger.Log("Server debug: " + IncomingData.FindTextNamed("debug"));
```

Objekte in mscap



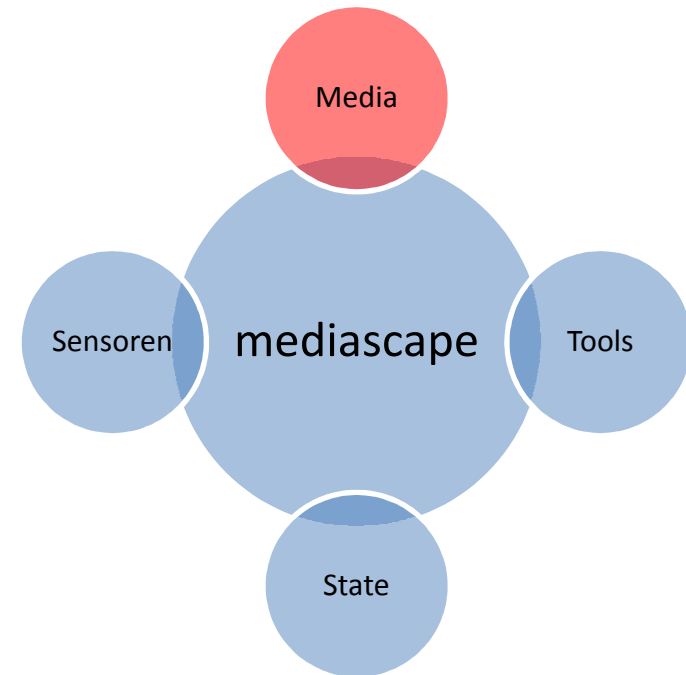
Objekte in mscape

- 2D Barcodes
- Bluetooth
- GPS
 - Map
 - Pin
 - Region
 - Speaker
- IR Beacon
- RFID Tag
- Wifi Base Station



Objekte in mscap

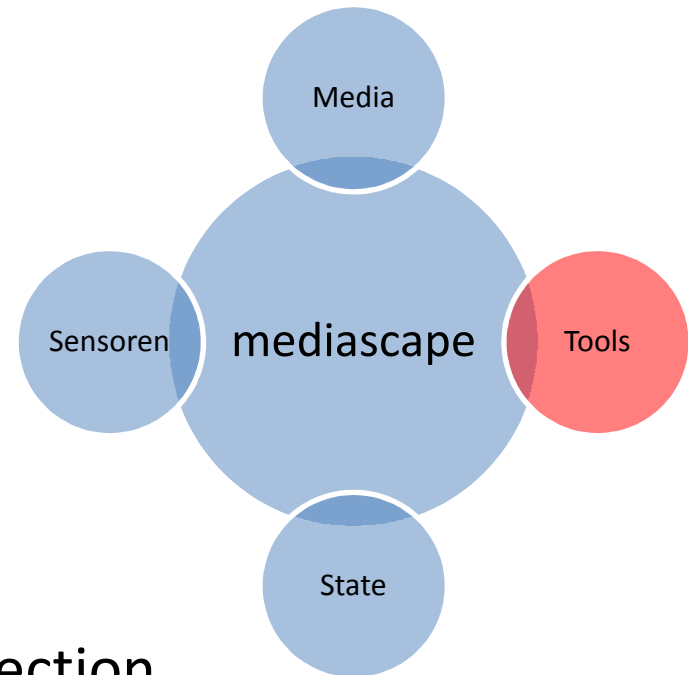
- Audio
- Images
 - Hotspot
- Flash Movie
- Slideshow
- Video
- Webpage



Objekte in mscape

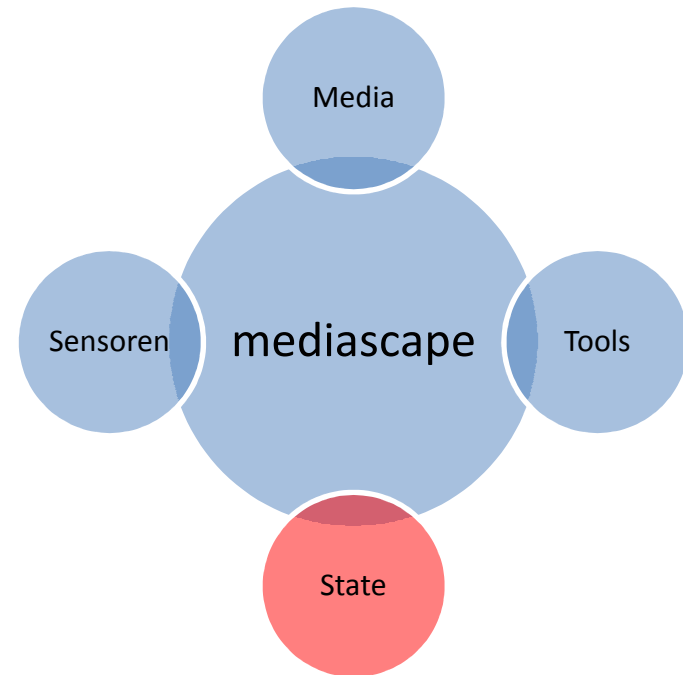
- Timer
 - Alarm
- Button
- Device
- Funktion
- Http Server
- Http Requester
- Logger
- Map Displayer
- State Maschine
 - Mstate

- Net Connection
- Playlist
- Word List



Objekte in mscape

- Number
- Text
- True False
- Group
- State List



Quellen

- R. Hull, B. Clayton, T. Melamad. Rapid Authoring of Mediascapes. in UbiComp 2004, The Sixth International Conference on Ubiquitous Computing. 2004. Nottingham, England.
- Stenton, S. P., R. Hull, P. M. Goddi, J. E. Reid, B. J. Clayton, T. J. Melamed and S. Wee (2007). "Mediascapes: Context-Aware Multimedia Experiences." IEEE Multimedia 14(3): 98 - 105.
- <http://www.mscapers.com>
- <http://www.mobilebristol.com>