AUGMENTED REALITY

presentation by Elvin Akkan

- 1// What does it mean?
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- 3// How can we do it?

What do we mean by Augmented Reality?

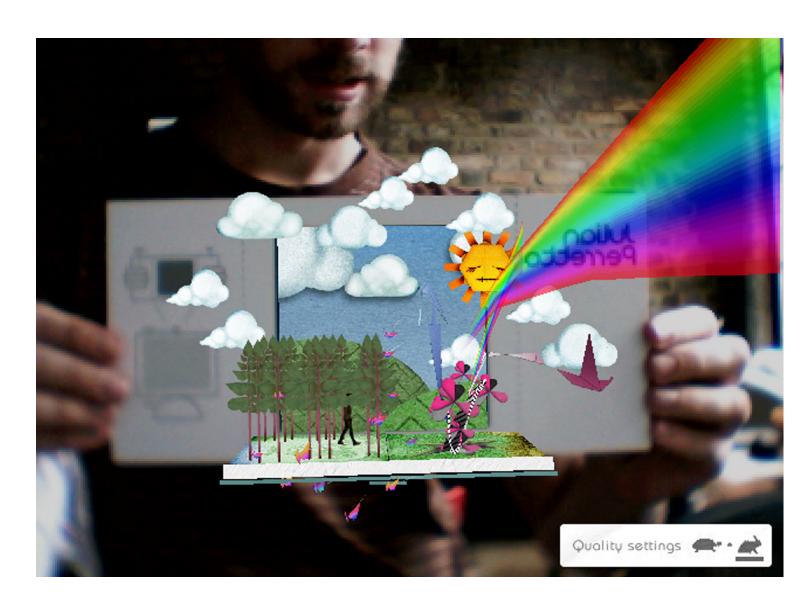
AUGMENTED REALITY

AR = Real World + Virtual Layer

Virtual Reality = Virtual World + Real Inputs

- Augmented reality is a term for a live direct or an indirect view of a physical, real-world environment whose elements are augmented by computer-generated sensory input, such as sound or graphics
- Augmented Reality is a relatively new technology that blends realworld footage and *computergenerated graphics* in real time

- -We call 'Desteklenmiş Gerçeklik' in Turkish.
- -What augmented reality does is provide you with an information overlay for your daily life.
- -Blurring the line between reality and virtual by enhancing what we perceive.



Retrieved from; http://www.boardsmag.com/ articles/magazine/20090601/ creative.html?page=2

Where do we use this technology?

It opens a whole lot of possibilities in many fields, from medical to engineering, including entertainment

```
// entertainment
// engineering design
// robotics and telerobotics
// manufacturing, maintenance
and repair
// consumer design
// military training
```

some examples from advertisements;

BMW Z4

http://www.youtube.com/watch?v =cTUJKvXIkSU&feature=player_e mbedded#at=53

Ford C-Max http://www.youtube.com/watch?v =bl8T9oYO5vY&feature=player_e mbedded

How does it help us in our daily life?

For Address& Phone
http://www.youtube.com/watch?v
=hWC9gax7SCA

Layar giving you a sleek Google Maps-esque interface over your local area.

http://www.youtube.com/watch?v =b64_16K2e08&feature=player_e mbedded#at=82

How can we do it?

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Software we need:
// Adobe Flash
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// ARToolKit calculate the real camera position and orientation relative to square physical markers in real time.

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// FlarToolkit is an open source code library for Augmented Reality in Flash
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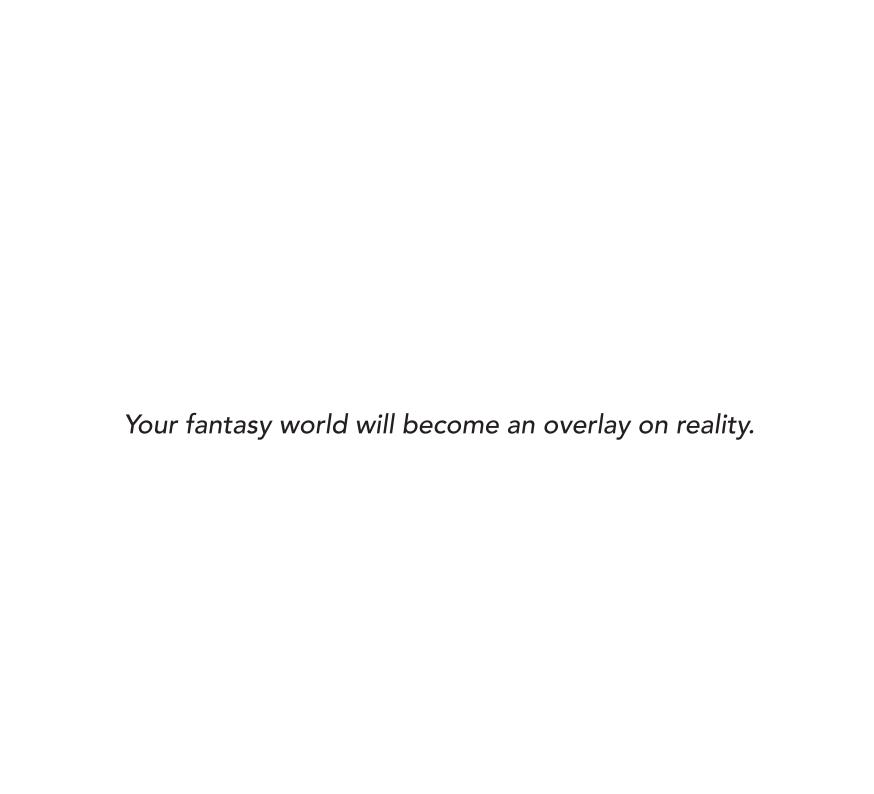
```
// Maya
```

// A camera

Also you need

// Marker File The marker file is a pattern that Flar will look for from your webcam.

- 1. Design a marker, you can put whatever you want in the middle of the square.
- 2. Print out the marker open up the air app and point the marker at your webcam. When you get a red square around your marker hit "Save Pattern" and you're done.



If you really interested in augmented reality visit:

http://augmentedblog.wordpress.com

Thanks for listening!

presentation by Elvin Akkan Sabanci University 2010/2011