Vorlesung: Wissenschaftliches Arbeiten
WS 2017/2018

Topics for Presentations and Literature

1	What is *Computer Vision?* (Theory, computer engineering, applications)	David A. Forsyth
	Artificial Intelligence – **Friend** or Foe	Klaus Mainzer
	Artificial Intelligence – Friend or **Foe**	Klaus Mainzer
2	Snowden Chpt. 5 (Colour vision)	Text Scan
	Snowden Chpt. 7 (The third dimension)	Text Scan
3	Snowden Chpt. 9 (The development of vision)	Text Scan
	Snowden Chpt. 10 (The perception of faces)	Text Scan
4	Turing Machine	Charles Petzold
	Algorithm	Jean-Luc Chabert
	Patch Matching (algorithm)	Ian Goodfellow
5	Post-quantum cryptography (algorithm)	
	Deep learning	Ian Goodfellow
	Neural Network	Christopher M. Bishop
6	Convolutional Neural Network	Ian Goodfellow?
	AlexNet	Ian Goodfellow
	Histogram of oriented gradients (HOG features)	
7	Reinforcement learning (problem of Artificial neural networks)	Ian Goodfellow?
	Clustering: K-means (problem of Artificial neural networks)	Johann Bacher
	Clustering: Bag of words (problem of Artificial neural networks)	Johann Bacher
8	GANs – pro	Ian Goodfellow: GAN
	GANs – con	Ian Goodfellow: GAN
9	Augmented reality/virtual reality	Philippe Fuchs
	Other areas of impact of computer vision in everyday life (art history?)	