Affective Computing – Bringing Humans and Machines Closer Through Emotions

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Research have shown that emotions play an integral role in decision making, cognition, perception, learning and more. If we want our computers to be intelligent and be able to interact with us, we need to ensure that they are able to recognize, understand and express emotions. This is the basic assumption of the field of Affective Computing. This session provides an overview of Affective computing and how it can be applied in order to make our interaction with machines more suitable to us as humans. Beginning with an introduction to the field starting with established findings from the field of psychology on how we best can measure emotions. Further on describing how the field of Affective Computing has transformed from its origin in the 90's until now when it is an established research field. Highlighting some of the technology enablers that has made Affective Computing a hot topic nowadays and give some examples of API and services that we as developers can use as of today. In the second part the discussion is done on some basic examples on application scenarios across various fields (retail, medical, education and social) and show casing what is in the front line now. The presentation will be concluded with some recommendations on how this affects us as developers going forward.

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Biography

Håkan holds a Master of Science degree in Electrical Engineering and in addition, he holds a Master's degree in Leadership and Organizational behavior. He has also taken courses on university level in psychology, interaction design and human-computer interaction. He has 20 years' experience of software development in various positions such as developer, tester, architect, project manager, scrum master, practice manager and team lead. Håkan is Chairman of the local chapter of the Norwegian.NET User Group Oslo (NNUG) and is active as an Ambassador for Oslo. AI the local chapter for the global City.AI community. Håkan is a Microsoft Most Valuable Professional (MVP) in AI. Currently Håkan is working as Manager AI and Big Data at Miles AS,a Norwegian consultancy company.

Figure 1: Example of Microsoft Emotion API from the Cognitive Services offering for analyzing pictures and get an emotion profile

Citation: Håkan Silfvernagel, Affective Computing – Bringing Humans and Machines Closer Through Emotions, Robotics & AI 2020, International Conference on Robotics and Artificial Intelligence, Prague, Czech Republic, 20-21 July,2020, 29