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After reading through this I feel the subject matter was presented well. Without having read the actual articles I get a feel for what they are about. There were a few grammar errors and a couple incorrectly spelled words but it did not take away much. Reading it through for the first time I got confused about where he stopped talking about the main article and where he started discussing the secondary one. I had to re-read the last paragraph to get it. Maybe it's just me but the wording is confusing, I wasn't sure which one was the main article: "This article relates to the previous article reviewed, Markerless Garment Capture, by the fact that the previous article..." What is the "previous article reviewed"? My first thought was the article that I was just reading about was the previous one. After mulling this over for a while I see that what he means by "previous article reviewed" is the secondary article referenced by the main one. This is fine that I now understand but from a presentation standpoint it should be clearer. Also maybe he could have added more about the 2nd article but like I said I didn't read these articles so maybe there was not much to go on. Paragraph structure looks good. He doesn't jump around topics; it flows nicely. He also keeps to the same tense throughout. Overall it works.

I used strikethrough for grammar/spelling errors and [] for corrections.

Original article with corrections:

Mike Feole Graphics 1 LR2

Realistic cloth augmentation in single view video under occlusions

This article discusses the challenges of producing a virtually represented cloth object in a real-time video. A few of the challenges are;[:] representing the cloth object as a virtual object, replacing the actual object with the virtual object in the video, having the virtual object occlude things the real object occludes, and having the virtual object ~~being~~ [be] occluded by things the real object is occluded by.

Single view video limits the cloth object to be shot with multiple cameras to obtain a 3-dimensional virtual object. Since only single view is considered[,] we only fake a 3-dimensional object by ~~take~~ [taking] a model based off of a single camera shot. Once the model is obtained, deformations in the real object are reflected in the virtual object via retexturing. Once retextured[,] external occlusions are considered and it is projected back ~~in to~~ [into] the video representing the actual object with occlusions.

Many ways of tracking distortion in the real object provide[s] issues. There are problems with using markers. In the condition where you have markers that track points on the object, then remove them upon retexturing the virtual object, followed by projecting it in to the image doesn't take ~~in~~ [into] consideration lighting and/or shading. Another approach is using color markers on the real object, but those require a preconceived knowledge of the real object and the colors of the markers. This method also does not take ~~in~~ [into] consideration

shading or lighting. Using a [an] imaging registration path is the best method found for acquiring both geometric and photometric parameterizations of the real cloth object.

Using a mesh-based model we characterize deformation and photometric parameters [parameters]. Then a robust estimator is used to account for occluded pixels. Then a [an] occlusion map is built from the estimated pixels due to external occlusion. Finally a retexturing is done so the virtual object is ready for augmentation.

This article relates to the previous article reviewed, Markerless Garment Capture, by the fact that the previous article does ~~3-dimentional~~ [3-dimentional] modeling using multiple cameras. This article refers to it as an example if you wanted to do cloth virtualization in 3-D. Both articles deal with hardships in tracking the cloth object with or without using markers. This article doesn't need to represent and present the virtual model in 3-D;[,] it just needs to take ~~in~~ [into] consideration deformation and light changes. The previous article fully represents a garment in a virtual 3-D model which is deformed to represent movement. This article also covers lighting, whereas the previous article did not cover this subject. Mike Feole
Graphics 1 LR2

Bibliography

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@article{Hilsmann2010567,  
title = "Realistic cloth augmentation in single view video under occlusions",  
journal = "Computers & Graphics",  
volume = "34",  
number = "5",  
pages = "567 - 574",  
year = "2010",  
note = "CAD/GRAPHICS 2009; Extended papers from the 2009 Sketch-Based Interfaces and  
Modeling Conference; Vision, Modeling & Visualization",  
issn = "0097-8493",  
doi = "DOI: 10.1016/j.cag.2010.05.015",  
url = "http://www.sciencedirect.com/science/article/B6TYG-508K82X-  
1/2/f561016c4e106f61dba5127c1a76bbb7",  
author = "Anna Hilsmann and David C. Schneider and Peter Eisert",  
keywords = "Augmented reality",  
keywords = "Cloth retexturing",  
keywords = "Optical flow",  
keywords = "Non-rigid tracking"  
}
```

```
@inproceedings{1360698,  
author = {Bradley, Derek and Popa, Tiberiu and Sheffer, Alla and Heidrich, Wolfgang and  
Boubekeur, Tamy},  
title = {Markerless garment capture},  
booktitle = {SIGGRAPH '08: ACM SIGGRAPH 2008 papers},  
year = {2008},  
isbn = {978-1-4503-0112-1},  
pages = {1--9},  
location = {Los Angeles, California},  
doi = {http://doi.acm.org/10.1145/1399504.1360698},  
publisher = {ACM},
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address = {New York, NY, USA},  
}
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