WHEN COMPUTERS IMAGINE INTERNET PORN
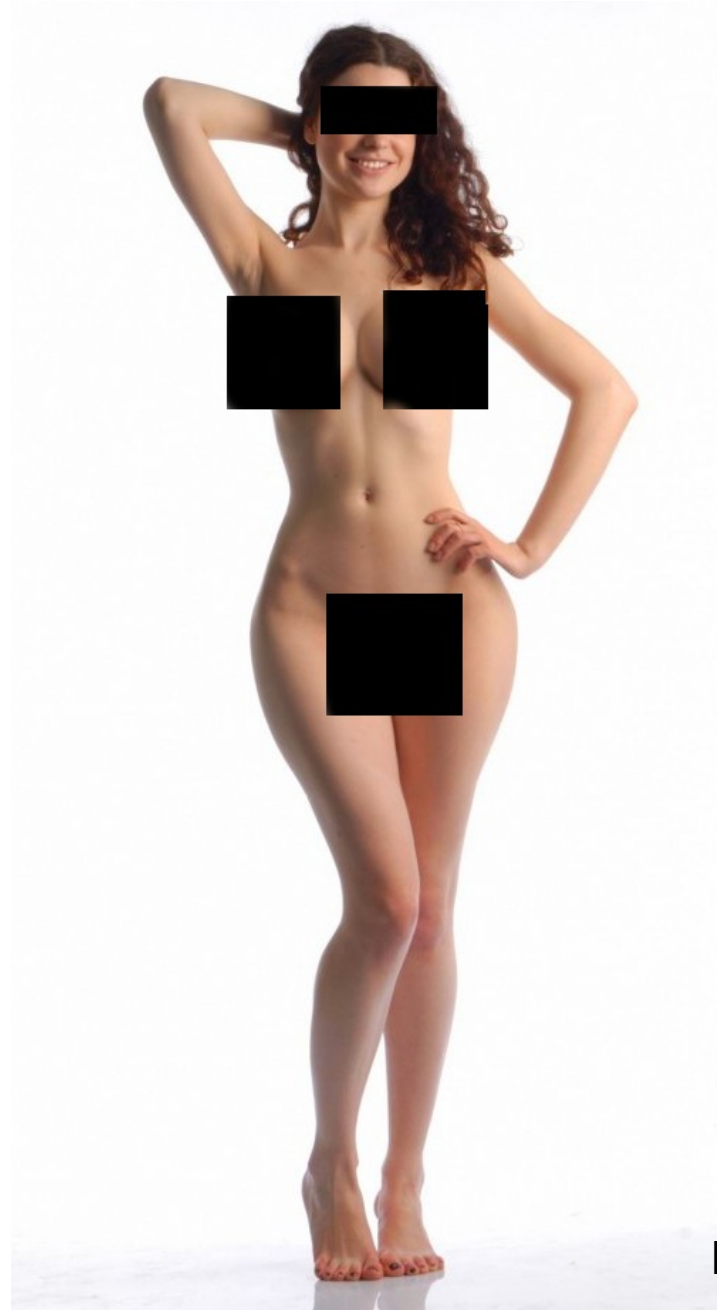
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The Ideal Pornographic Image

From uselessjunk.com

The ideal for...

The ideal for...

Computer Vision-Based Pornography Filtering (CVPF)

Methodologies

- 102 CVPF articles

Methodologies

- 102 CVPF articles
- Close reading of text

Methodologies

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- Quantitative analysis of images

Methodologies

- 102 CVPF articles
- Close reading of text
- Quantitative analysis of images
- Comparison of CVPF to Pornography Studies

Conclusions

- CVPF assumes pornography is limited to images of naked women

Conclusions

- CVPF assumes that sexuality is largely comprised of men looking at naked women

Conclusions

- CVPF assumes that pornographic bodies comport to specific, predictable shapes, textures, and sizes

Conclusions

- The narrow vision of pornography found in the CVPF literature is a direct result of gender and sexual inequality in the larger computer technology industry

1990s Porn Panic

Finding Naked People

Finding Naked People

Margaret M. Fleck[1], David A. Forsyth[2], and Chris Bregler[2]

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[2] Computer Science Division, U.C. Berkeley, Berkeley, CA 94720

Abstract. This paper demonstrates a content-based retrieval strategy that can tell whether there are naked people present in an image. No manual intervention is required. The approach combines color and texture properties to obtain an effective mask for skin regions. The skin mask is shown to be effective for a wide range of shades and colors of skin. These skin regions are then fed to a specialized grouper, which attempts to group a human figure using geometric constraints on human structure. This approach introduces a new view of object recognition, where an object model is an organized collection of grouping hints obtained from a combination of constraints on geometric properties such as the structure of individual parts, and the relationships between parts, and constraints on color and texture. The system is demonstrated to have 60% precision and 52% recall on a test set of 138 uncontrolled images of naked people, mostly obtained from the internet, and 1401 assorted control images, drawn from a wide collection of sources. **Keywords:** Content-based Retrieval, Object Recognition, Computer Vision, Erotica/Pornography, Internet, Color

From Forsyth, David A., Margaret Fleck, and Chris Bregler. 1996. "Finding Naked People." International Journal of Computer Vision.
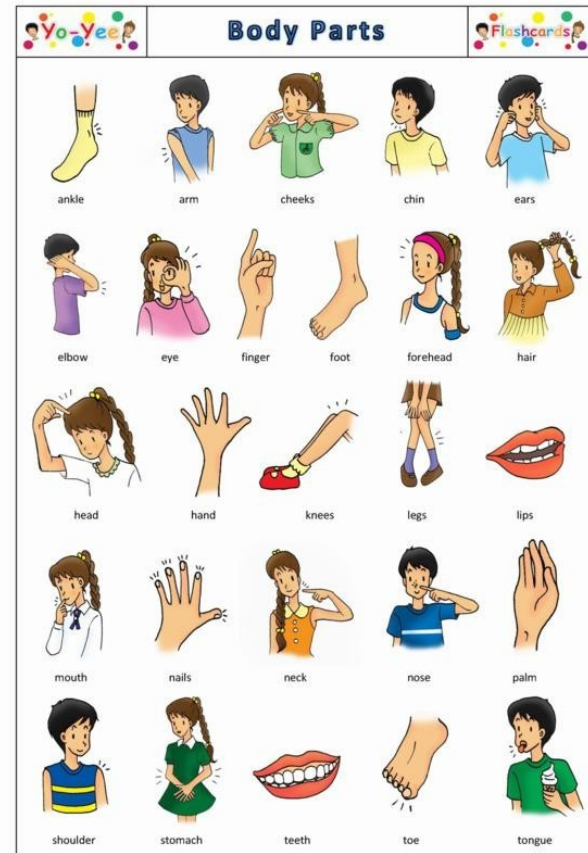
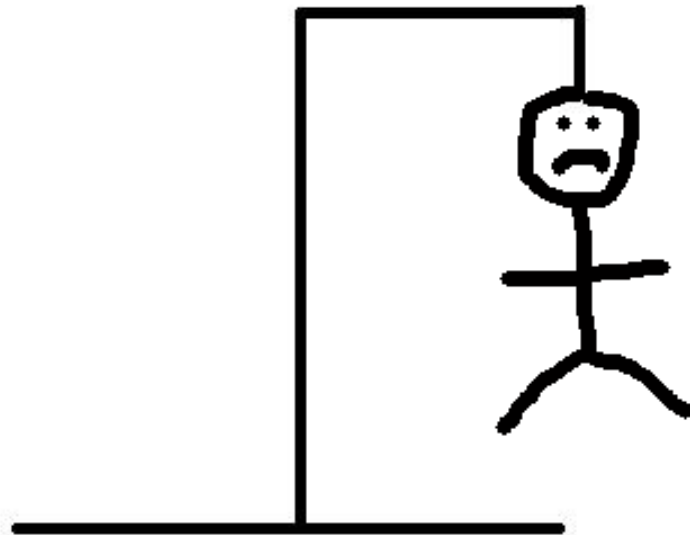# Analysis: Close Reading

- Decomposition of the Body
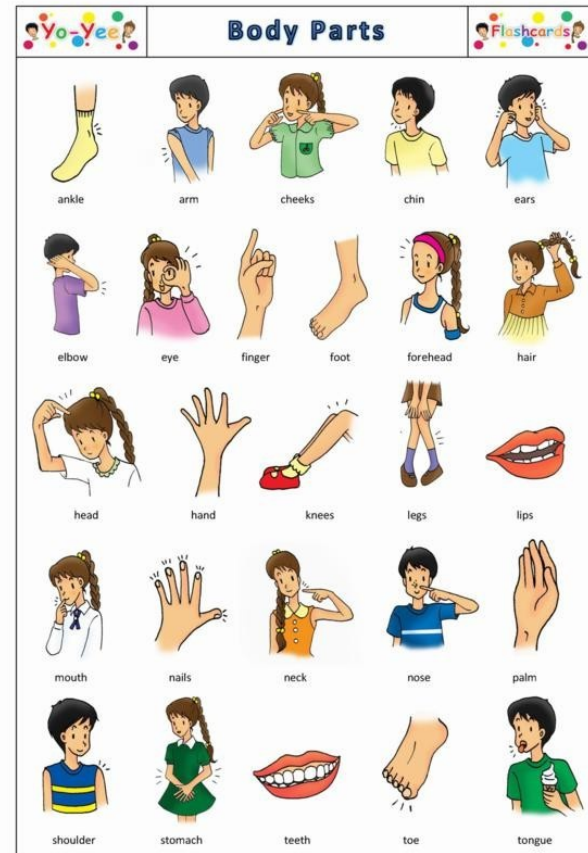
Analysis: Close Reading

- Decomposition of the Body
  - Body broken into:
    - Skin
    - Face
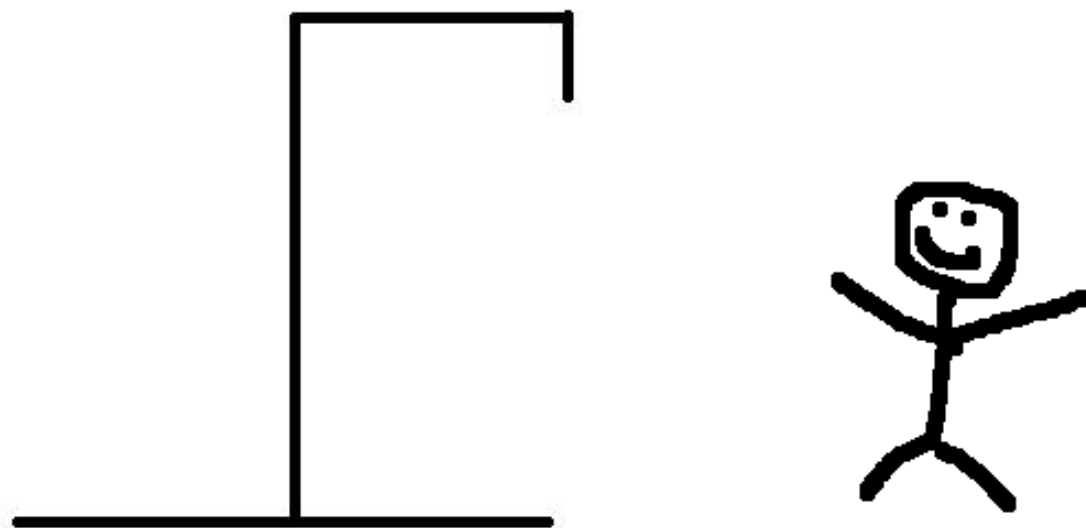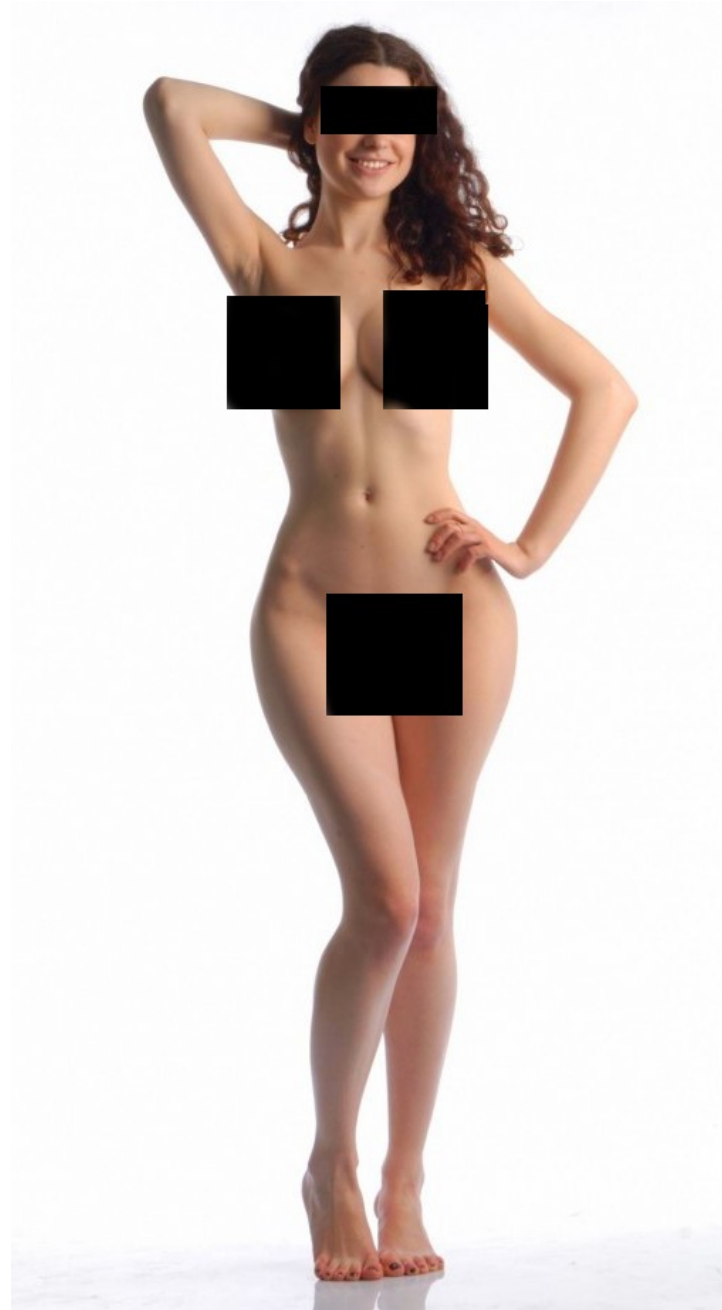   - Nipples
    - Erotogenic Parts

Spot the Missing Organ!

Spot the Missing Organ!

The Ideal Pornographic Image
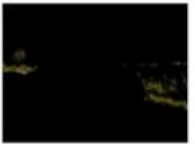
Analysis: Images in CVPF Articles

Table II Skin Detection using the proposed threshold to HSV color model

Input Image	HSV threshold

The Table II shows the segmentation in basis to human skin color using the proposed threshold to the HSV model color. This table contains some examples of people with white, brown and black skin, the proposed threshold works correctly.

VI. IMAGE CLASSIFICATION

Input Image	Color Model	Proposed Classifier	Skin Percentage
	YCbCr		60.64%
	YCbCr		56.36%
	YCbCr		2.39%
	HSV		75.55%
	HSV		28.17%

From Marcial-Basilio, Jorge A., Gualberto Aguilar-Torres, Gabriel Sanchez-Perez, L. Karina Toscano-Medina, and Hector M. Perez-Meana. 2011. "Detection of Pornographic Digital Images." International Journal of Computers 5 (2): 298–305.

Analysis: Images in CVPF Articles

- 67 of the 102 Articles had at least 1 example image

Analysis: Images in CVPF Articles

- 67 of the 102 Articles had at least 1 example image
- 530 images total

Analysis: Images in CVPF Articles

- 67 of the 102 Articles had at least 1 example image

- 530 images total

- 50% of the images are examples of pornography

Analysis: Images in CVPF Articles

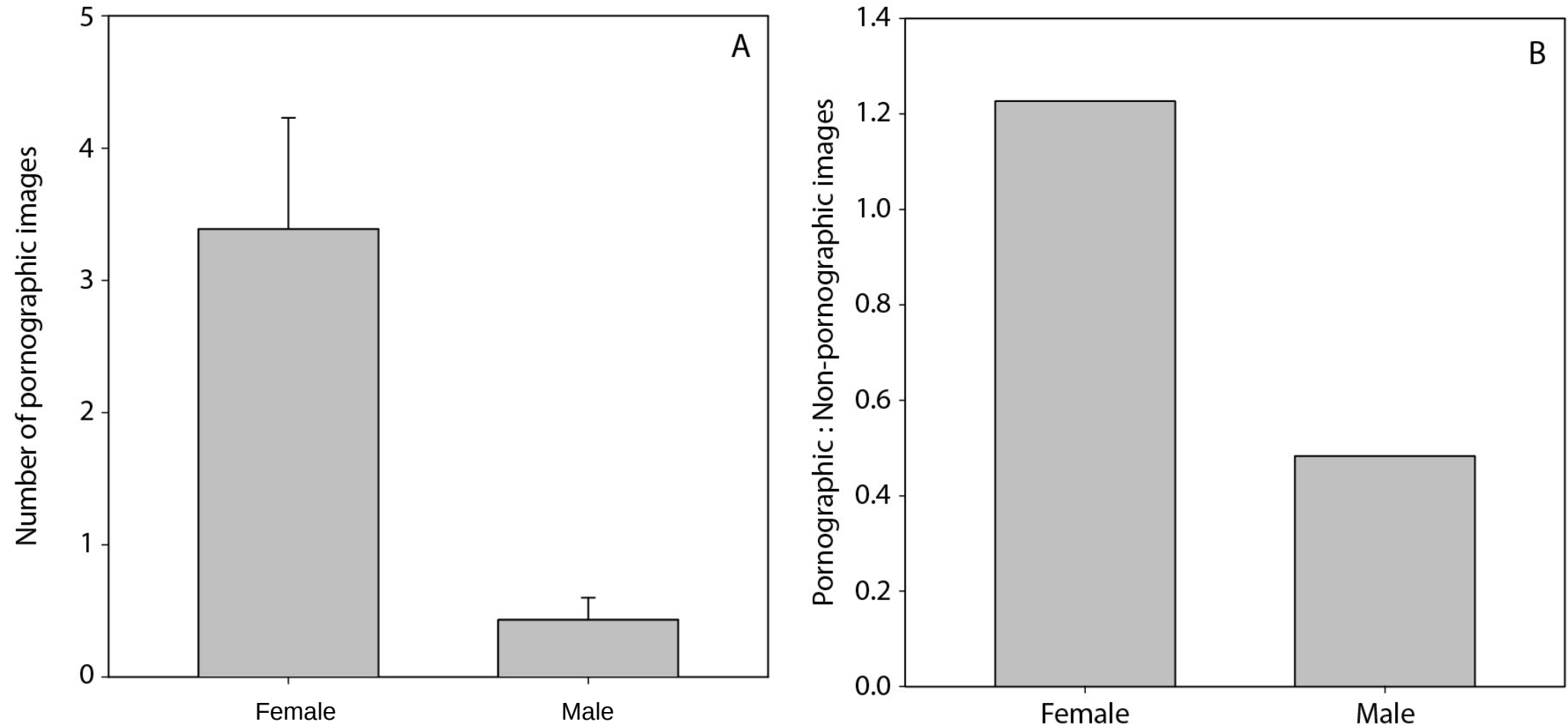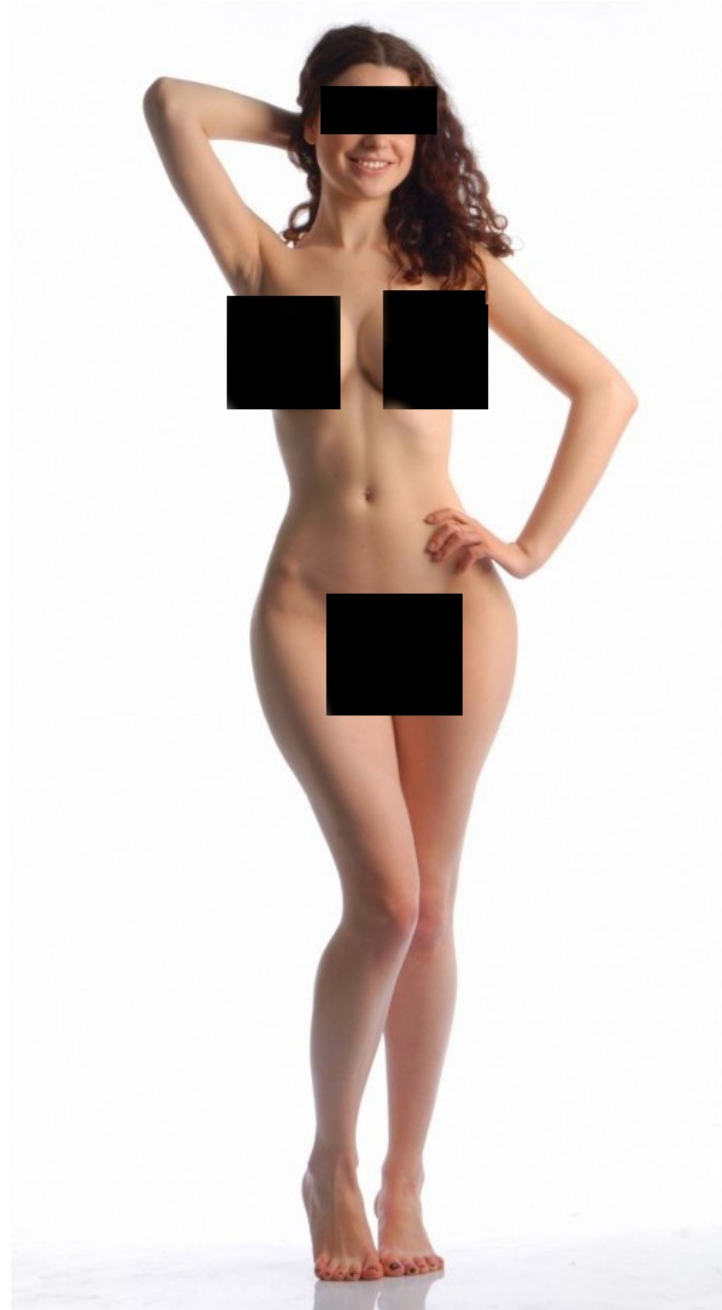|	Female	Male
Pornographic	42.8%	5.5%
Non-Pornographic	34.9%	11.3%
Total*	77.7%	16.8%

Analysis: Images in CVPF Articles

Figure 1. Panels showing mean and standard error of female and male pornographic images (A), and the ratio of pornographic to non-pornographic female and male images (B). Difference between the mean number of pornographic female and male images is significant (t = -3.45, $p \leq .001$).

The Ideal Pornographic Image

Computers Don't Like Porn That...

- has heterogeneous backgrounds,
- has tattoos, hair, paint, clothing, or writing on the skin,
- has inconsistent color spaces across images in a dataset,
- has low sharpness,
- is shot in multiple camera angles,

- is small (the image might be a thumbnail),
- has multiple people in one image,
- has multiple people with different skin colors,
- has animals, or
- focuses only on a part of a person.

Wang JZ, Wiederhold G and Firschein O (1997) System for screening objectionable images using daubechies' wavelets and color histograms. In: Interactive Distributed Multimedia Systems and Telecommunication Services, Springer, pp. 20–30. Available from: http://link.springer.com/chapter/10.1007/BFb0000336 (accessed 30 May 2015).
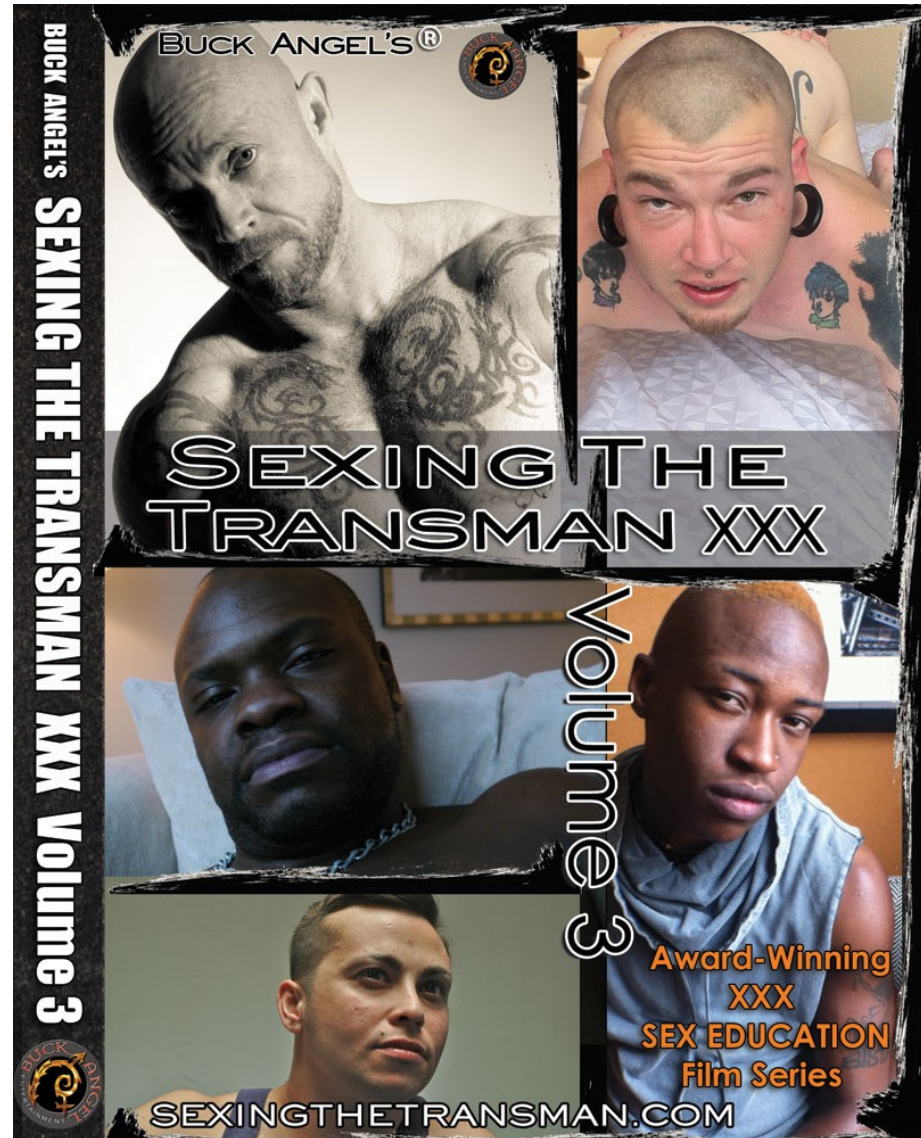
Computers Don't Like Porn That...

- has heterog... background...
- has tattoos, clothing, or skin,
- has inconsis... spaces acro... dataset,
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- is shot in m... angles,

MR. NOISY

- ... image ...humbnail),
- ... people in
- ... people ...t skin
- ... or
- ... on a part

"Noisy" Pornography

Angel, Buck. *Sexing The Transman,* 2011.

"Noisy" Pornography

Left: Bridgette Harrington.

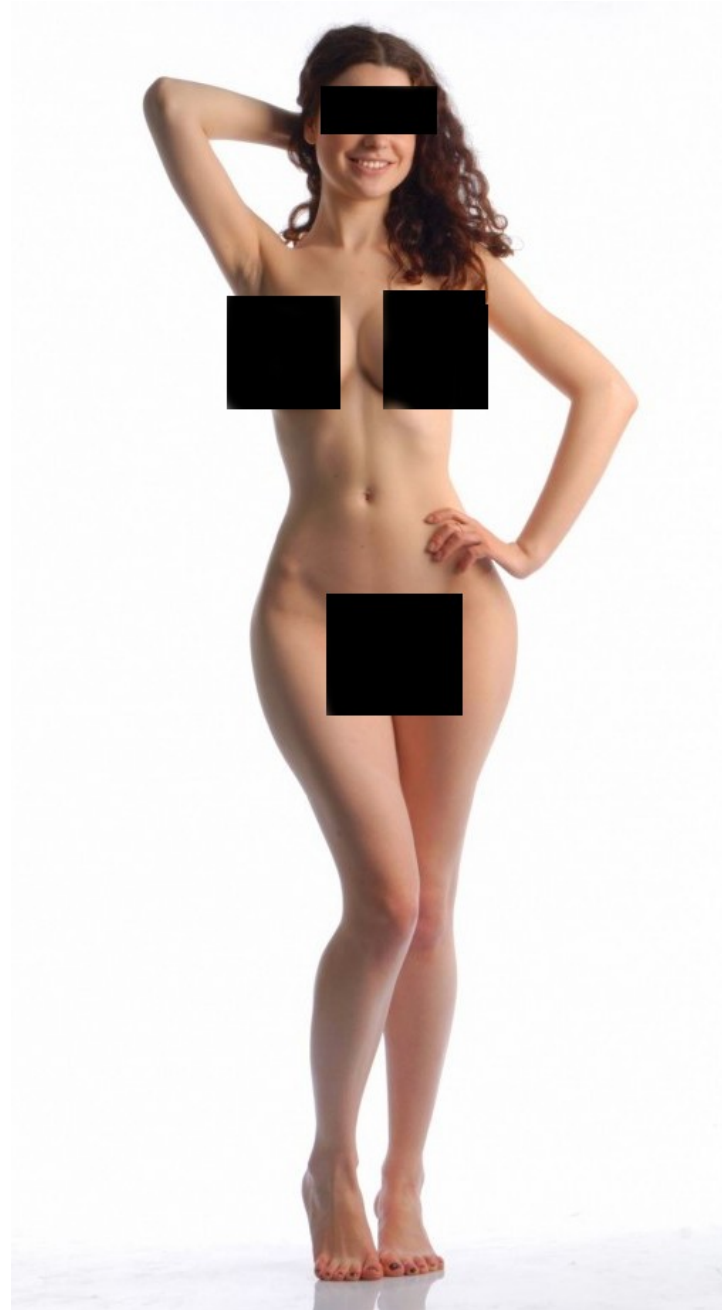Right: *Out* magazine, "New York Comic-Con Cosplay"

"Noisy" Pornography

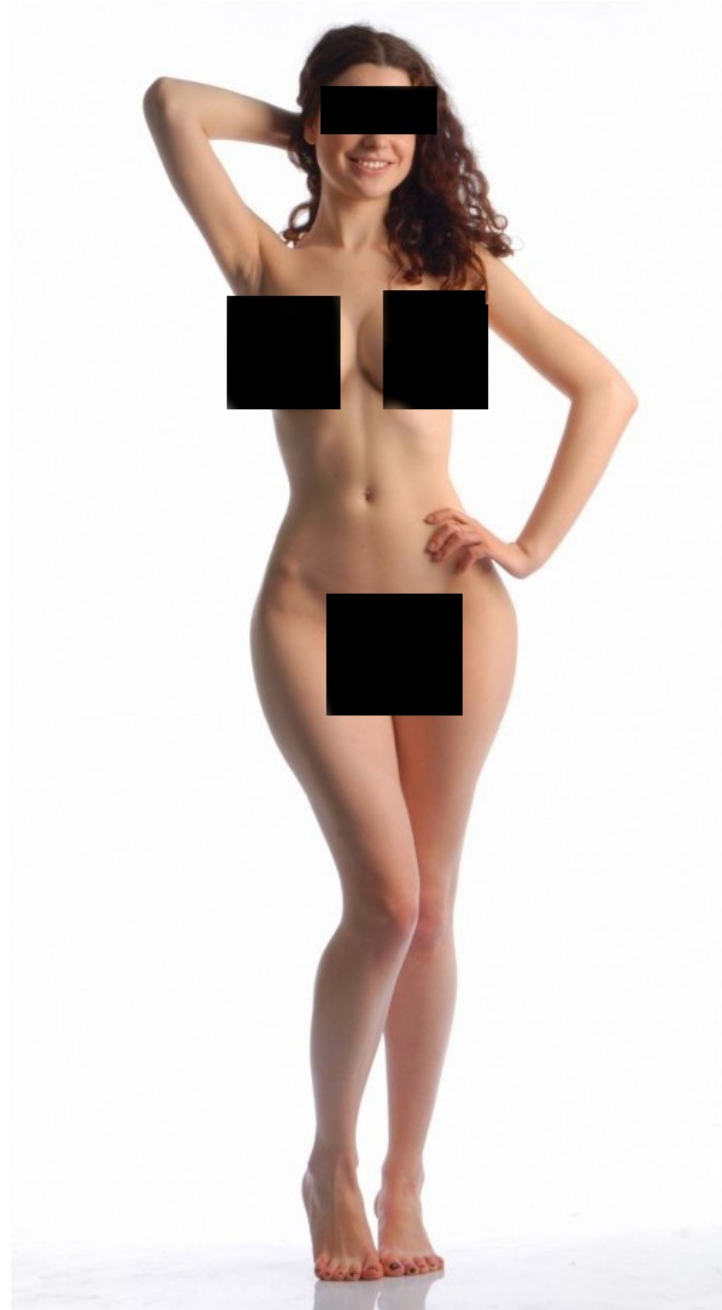*BBW Dreams 36*,
Sensational Video, 2014.

From pichunter.com

The Ideal Pornographic Image
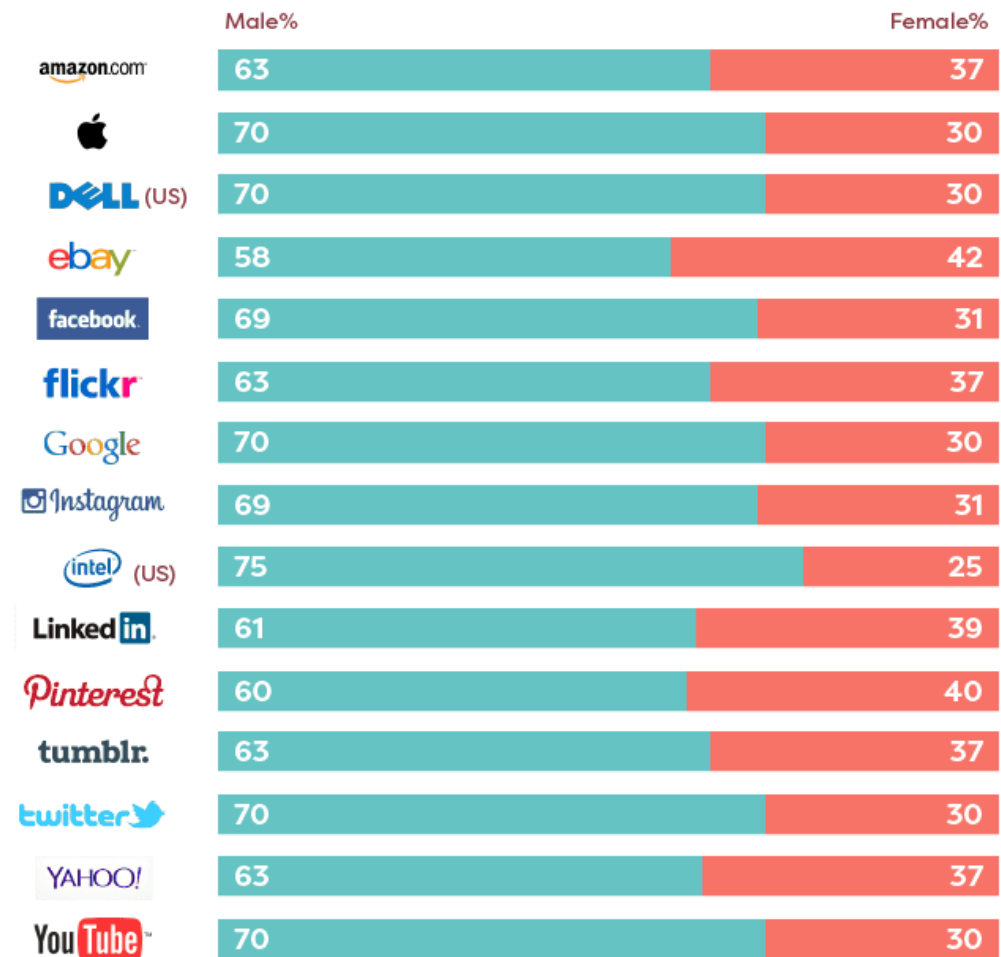
Diversity in Human Sexuality
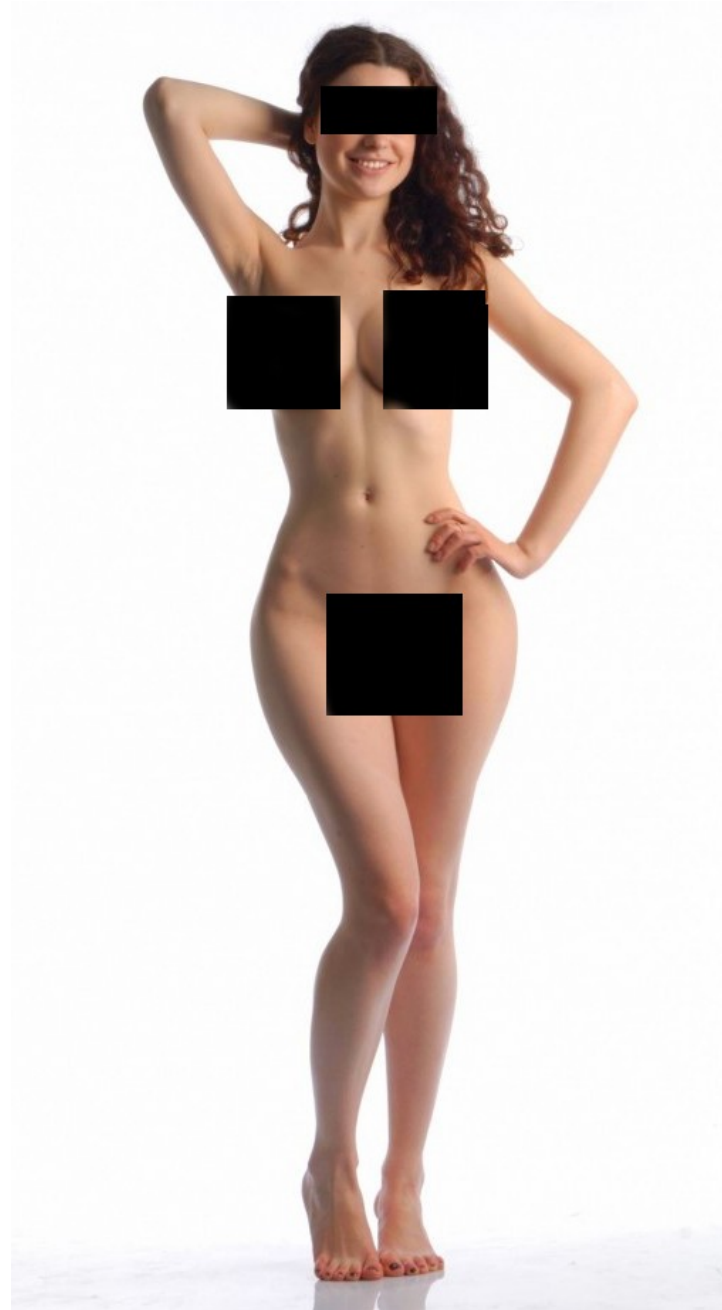
The Ideal Pornographic Image

Lack of Women in Tech

And it's not just about technical skills. At tech companies, the general make up of staff across all roles show an overwhelming male majority.

	Male%	Female%
amazon.com	63	37
Apple	70	30
DELL (US)	70	30
ebay	58	42
facebook	69	31
flickr	63	37
Google	70	30
Instagram	69	31
intel (US)	75	25
LinkedIn	61	39
Pinterest	60	40
tumblr.	63	37
twitter	70	30
YAHOO!	63	37
YouTube	70	30

Global figures unless otherwise stated.

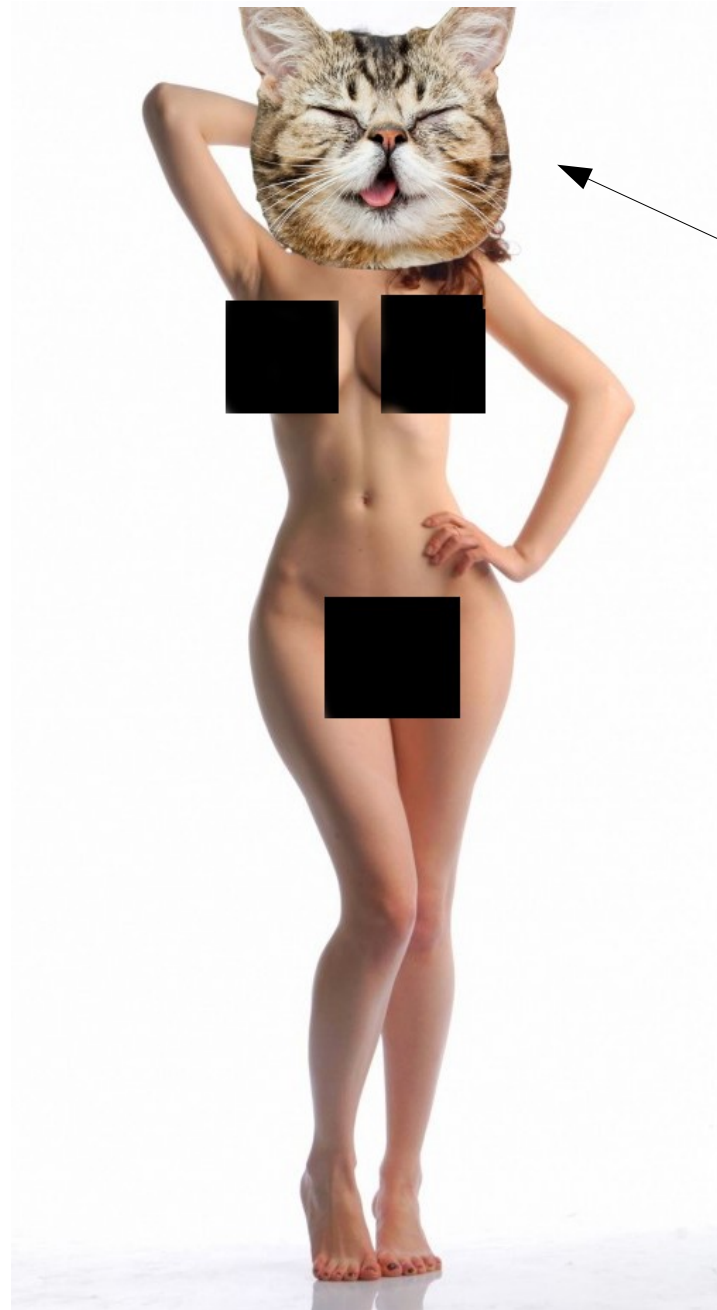Source: https://www.techinasia.com/talk/women-tech-infographic/

The Ideal Pornographic Image

The Ideal Pornographic Image
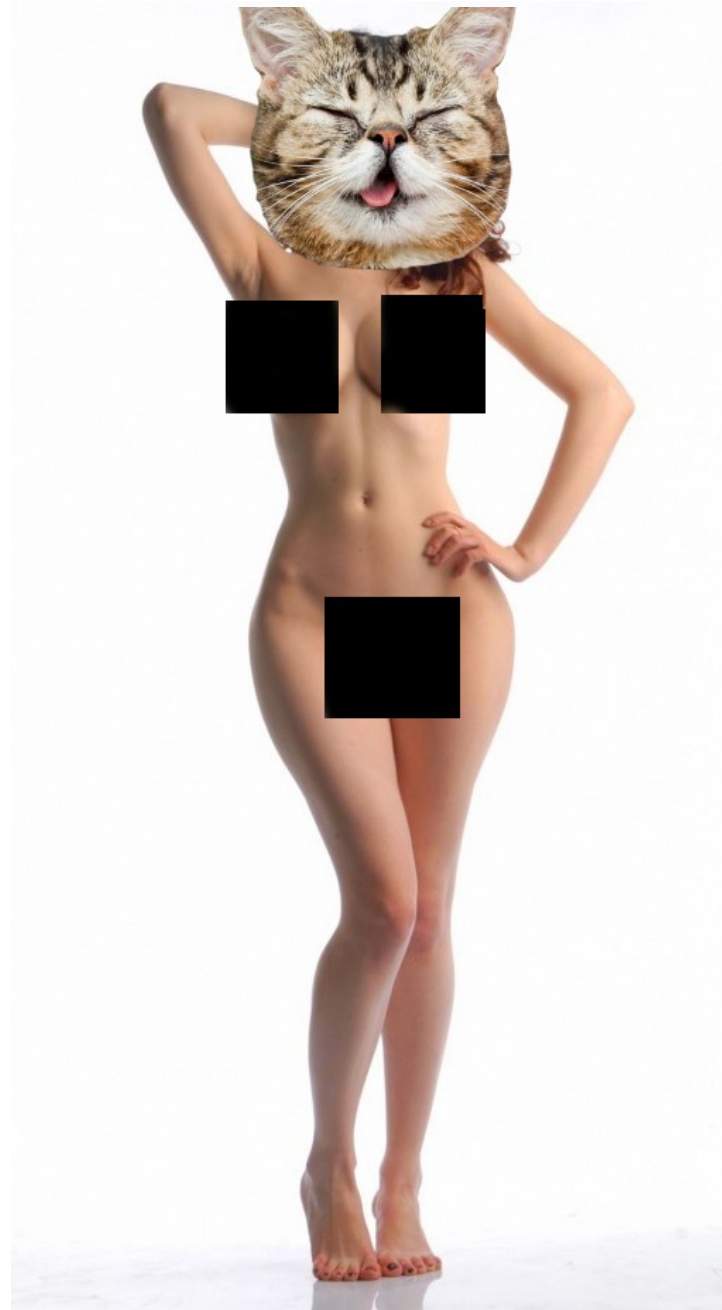
The Ideal Pornographic Image

My first AOIR cat!!!!1!!!

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