

AIで創出する新しい体験・価値



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Toshihiko YAMASAKI (山崎俊彦)

Attractiveness Computing (魅力工学)

-ビッグマルチメディアデータを用いた魅力の定量化、予測、解析、強化-



プレゼンテーションの印象解析



広告の「刺さる」度解析



SNSの人気度予測と強化



ブランド・ファッション



推薦・マッチング



不動産情報処理

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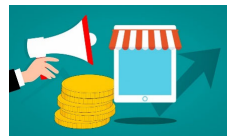
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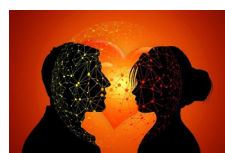
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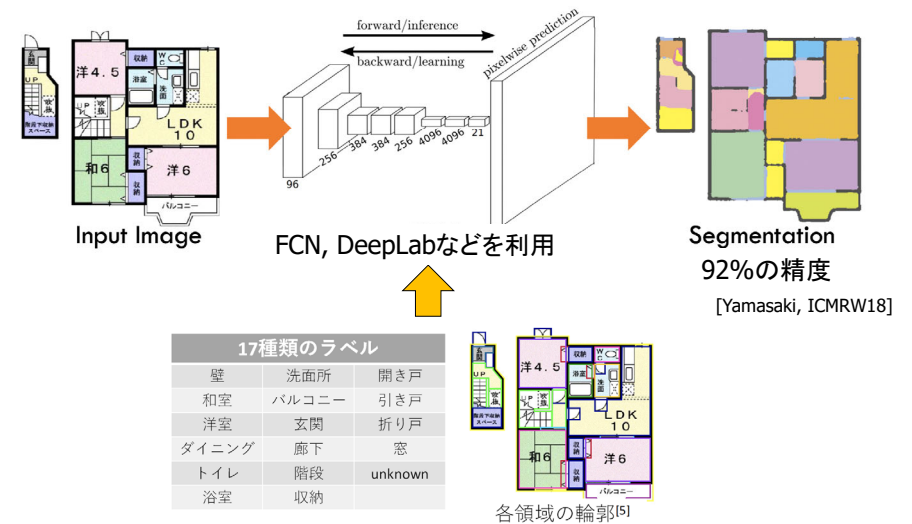
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間取り画像のSegmentationで何ができるか



LIFULL Home's dataset (<https://www.nii.ac.jp/dsc/idr/lifull/homes.html>) + クラウドソーシング⁴

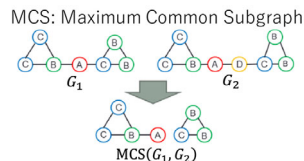
グラフ表現に変換できる



$$\text{sim}(G_1, G_2) = \frac{|\text{MCS}(G_1, G_2)|}{\max(|G_1|, |G_2|)}$$

$$0 \leq \text{sim}(G_1, G_2) \leq 1$$

G_1, G_2 : グラフ
 $|G_1|$: G_1 のノード数とエッジ数の和



数学的に厳密に議論できるようになる

間取り図の認識: 類似物件検索

[Yamada, JSAI19]

結果: 検索結果の例

Query

クエリ

1st: sim=0.853

2nd: sim=0.824

4th: sim=0.750

5th: sim=0.744

結果: 検索結果の例

Query

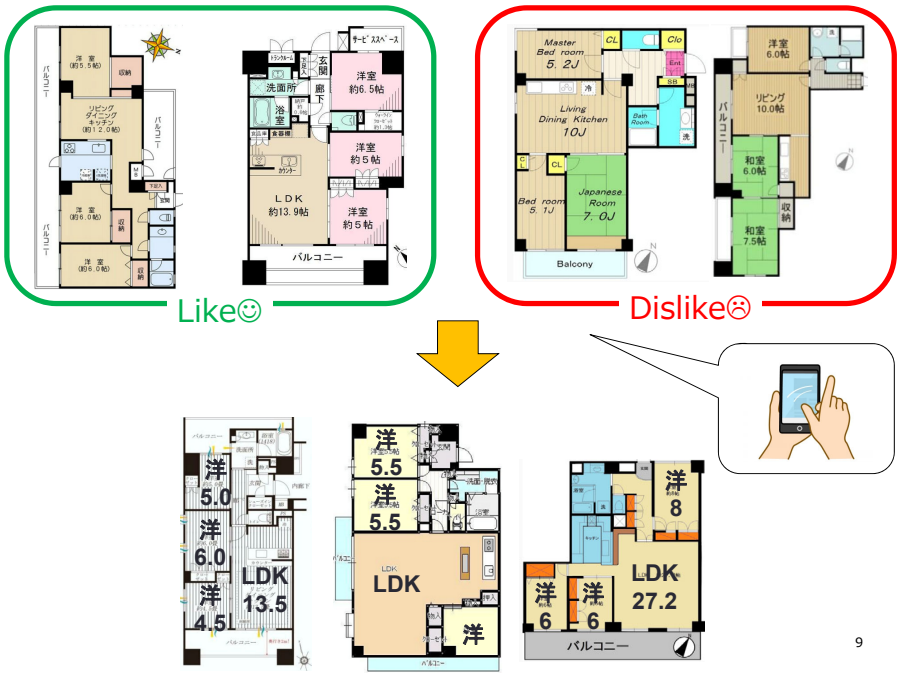
クエリ

1st: sim=0.818

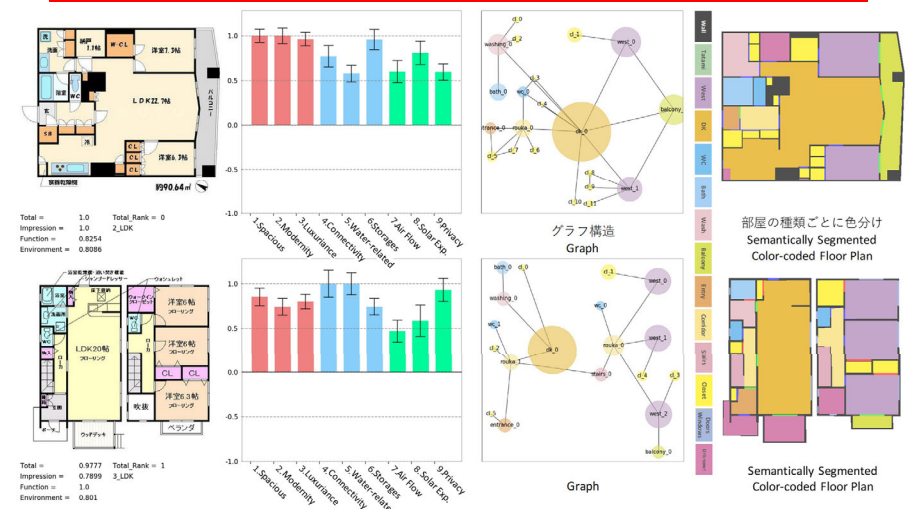
2nd: sim=0.818

4th: sim=0.818

5th: sim=0.818



間取り図の認識→住心地推定



NJIT建築学科の檜原先生との共同研究 10
 [Narahara, MVE19(HC賞(年間最優秀論文賞受賞))][Narahara, JSAI20]



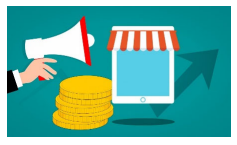
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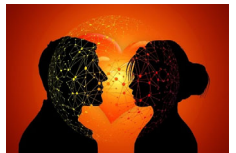
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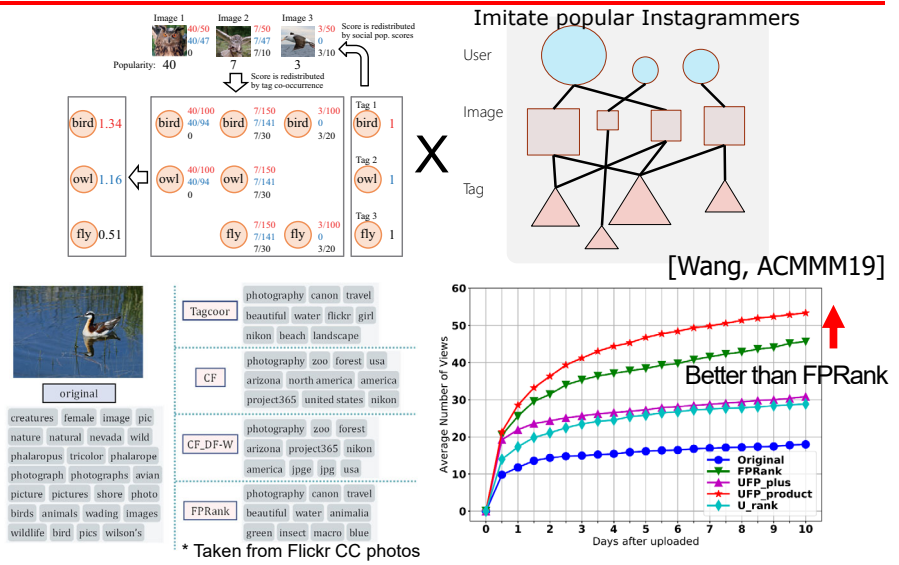
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User-Aware FP-Rank

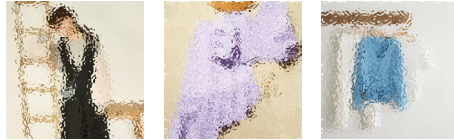


[Wang, ACMMM19]

How to measure the relationship?



Starbucks



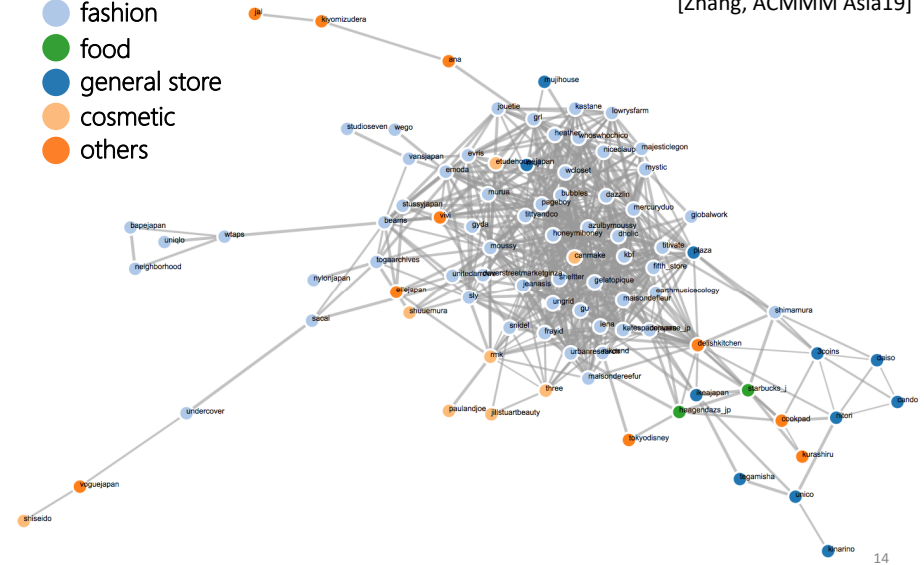
What kind of fashion brand he/she prefers?

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Visualization based on tags

[Zhang, ACMMM Asia19]

- fashion
- food
- general store
- cosmetic
- others



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Conclusions

- AI not only for recognition but for **creativity and novel user experience**
 - ReTech and PropTech applications
 - SNS and marketing applications
- Future directions
 - Application to city design
 - Fusion and collaboration
 - Open innovation

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