技術の進化と文化の進展

OLD NEW

OLD (馬車)

NEW (自動車)

OLD(馬車)

NEW (自動車)

ニッチな趣味 (乗馬)

OLD (白黒テレビ)

NEW (カラーテレビ)

OLD (白黒テレビ)

NEW (カラーテレビ)

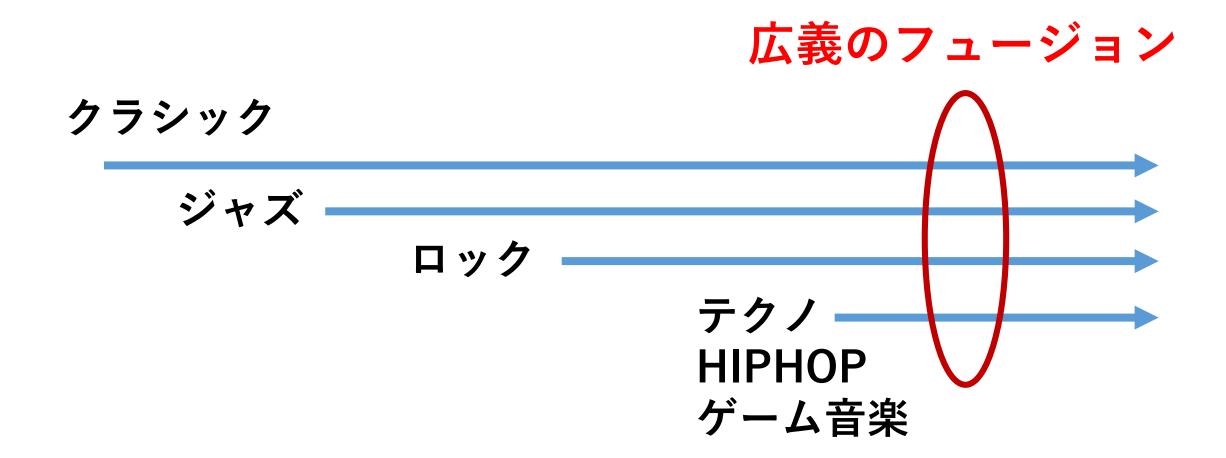
ノスタルジーなインテリア?

OLD (アナログ楽器)
NEW (コンピュータ楽器)

文化

クラシック
ジャズ
ロック
テクノ
HIPHOP
ゲーム音楽

文化





技術+文化?

OLD (レコード) NEW (CD)

技術+文化?

OLD (レコード)

NEW (CD)

楽器としてのレコード!!! (DJ)

楽器の種類

• 管楽器

• 弦楽器

• 打楽器

来週までの課題

手に取れる楽器のプロトタイプをつくってくること

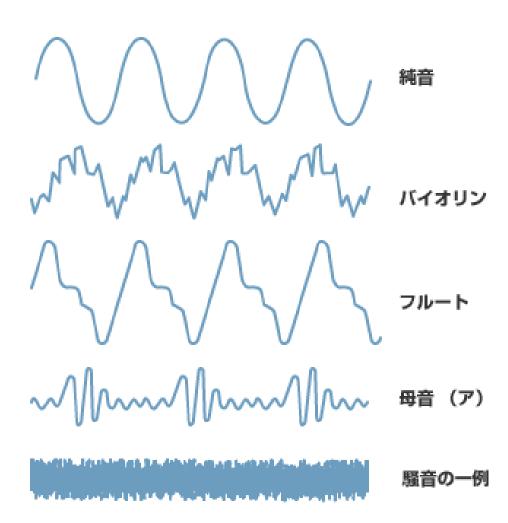


音の3要素

• 音量

• 音程

• 音色



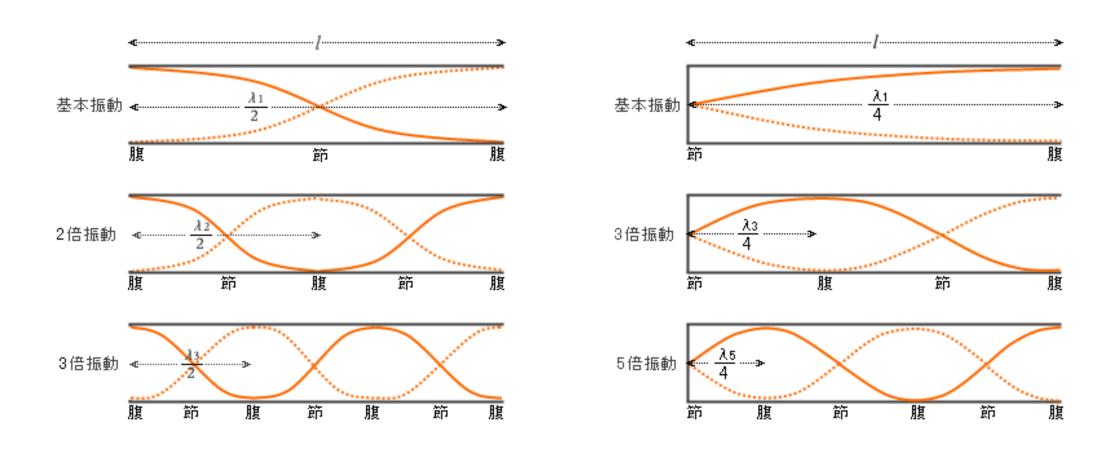
音楽の3要素

・メロディ

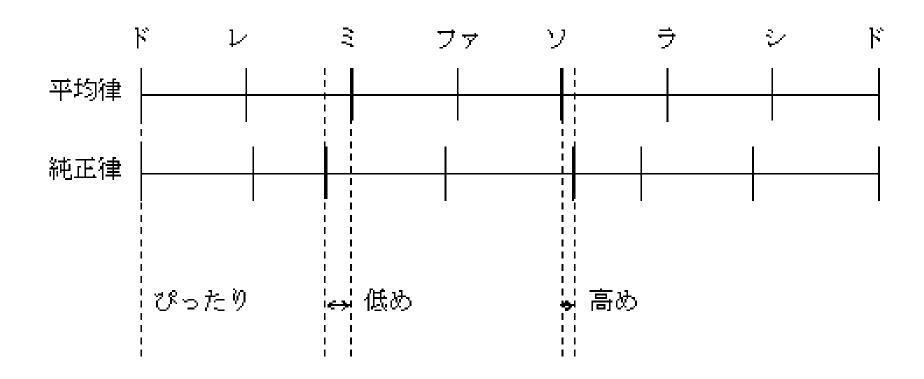
・ハーモニー

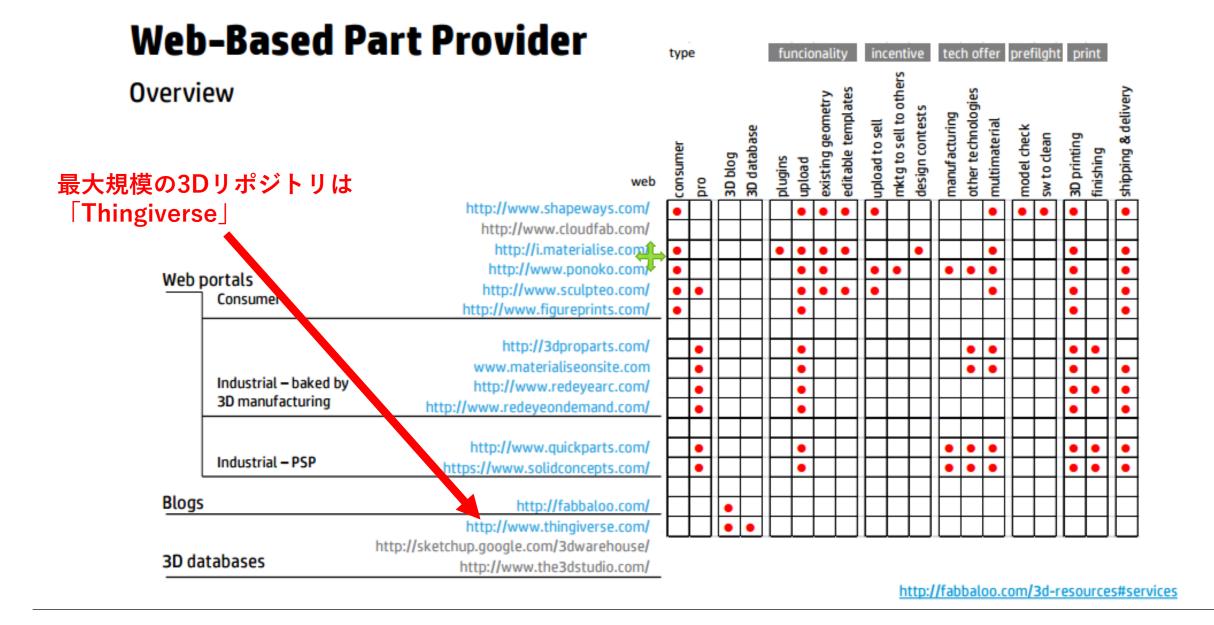
・リズム

音は波であり、 音程は周波数である (音量は波の高さ、音色は波のかたち)



純正率(倍数で音階をつくる) vs 平均律(1オクターブを12等分する)





SC06-S2: Introduction to 3D Ink Jet Printing Sunday September 27, 2015 10:15 am - 12:15 pm (2 hours)

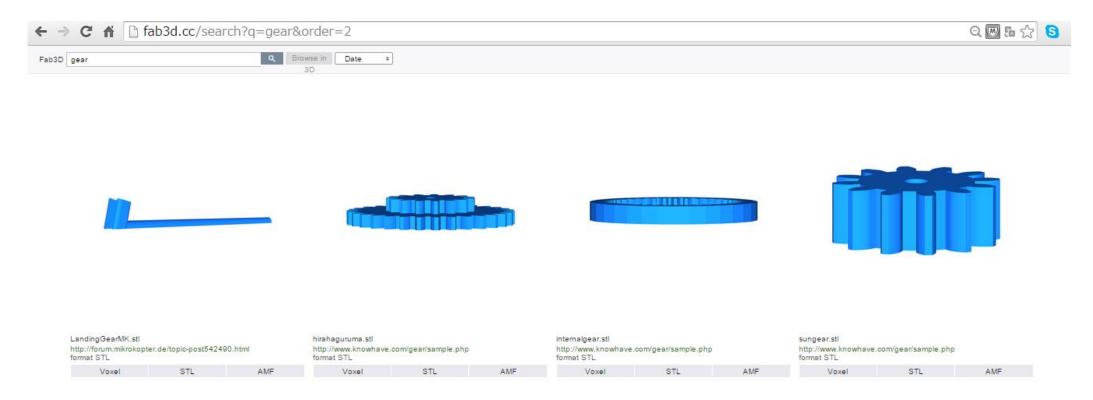
Instructor: Sascha de Peña, Hewlett-Packard Company

3D-Cross Search Engine (fab3d.cc)

STL Search & Navigation

http://fab3d.cc

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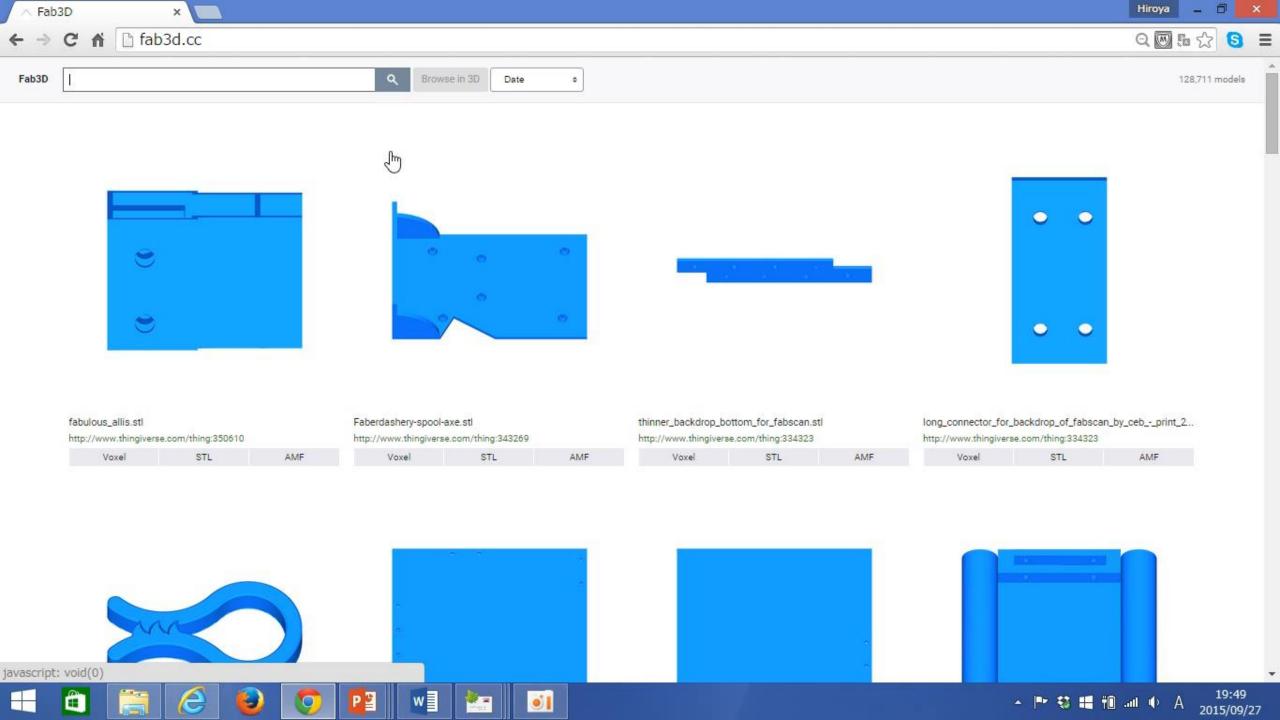




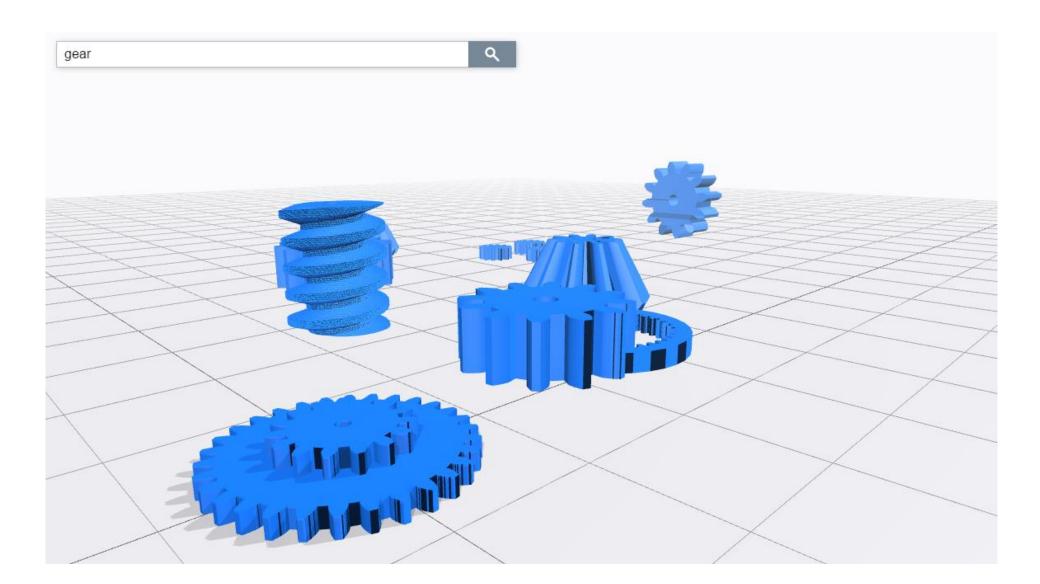








"a Garden of Gears"







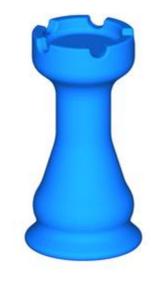
Voxel STL AMF



chess_bishop0.stl http://www.thingiverse.com/thing:261498 Voxel STL AMF

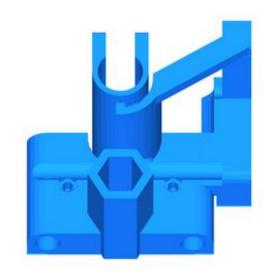


chess_knight0.stl	5500 Test (1955)
htp://www.thingiverse.	.com/thing:261498
Voxel	STL



chess_queen0.stl		
http://www.thingiverse.	com/thing:261498	
Voxel	STL	AME

















bird_chess_pawn.stl http://www.thingiverse.com/thing:248258

Voxel

STL AME bird_chess_rook.stl

http://www.thingiverse.com/thing:248258

Voxel STL AMF

bird_chess_queen.stl http://www.thingiverse.com/thing:248258

Voxel STL AME copy_of_bird_chess_king.stl http://www.thingiverse.com/thing:248258

> Voxel STL AMF

















Chinese_chess_red_Horse.STL http://www.thingiverse.com/thing:218414

Voxel STL AMF Chinese_chess_back_Elephant.STL http://www.thingiverse.com/thing:218414

Voxel

AMF

Chinese_chess_back_Soldier.STL http://www.thingiverse.com/thing:218414

> Voxel STL AME

Chinese_chess_back_Cannon.STL http://www.thingiverse.com/thing:218414

STL AMF Voxel

















ChessSet_Queen_-_Voronoi.stl http://www.thingiverse.com/thing:172960 ChessSet_Knight_-_Voronoi.stl http://www.thingiverse.com/thing:172960 ChessSet_Pawn_-_Voronoi.stl http://www.thingiverse.com/thing:172960 ChessSet_King_-_Voronoi.stl http://www.thingiverse.com/thing:172960

Voxel

Voxel

STL

AMF

Voxel

STL

AMF

STL Voxel

AMF

STL

AME

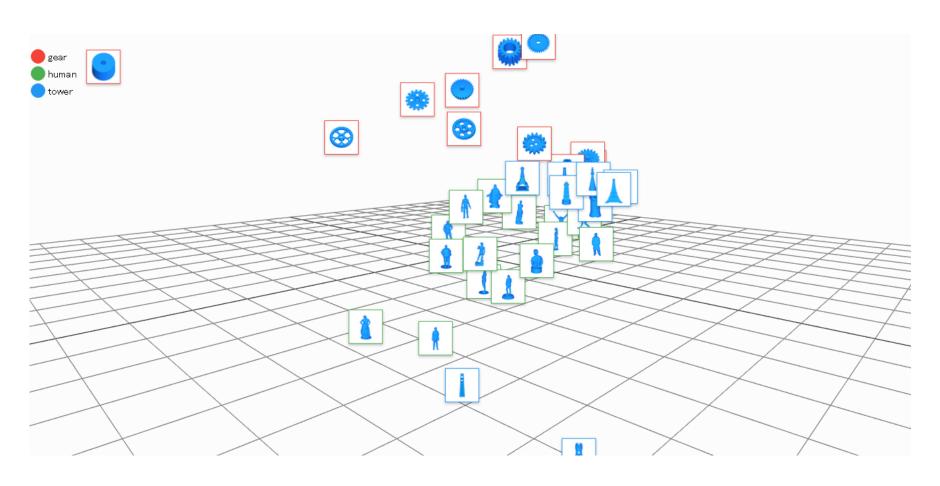






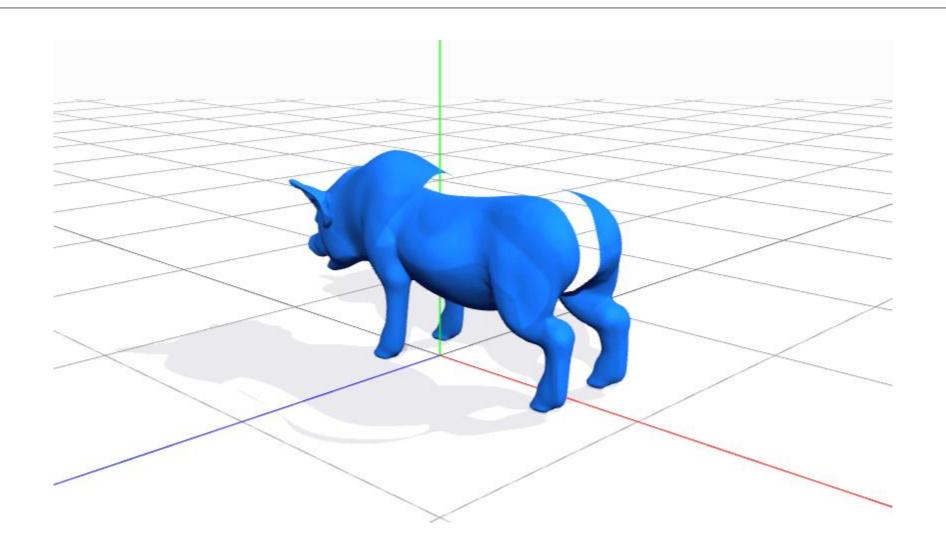
Volonoi

View-Based Retrieval

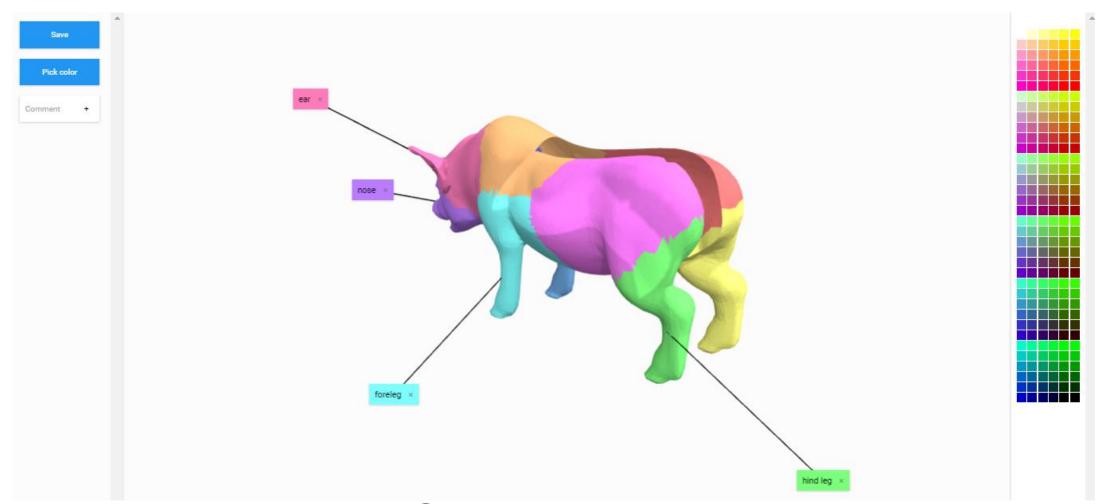


Silhouette
Depth Buffer
Light Field
Spin Images
SIFT

AMF Editing (under license of Creative Commons)

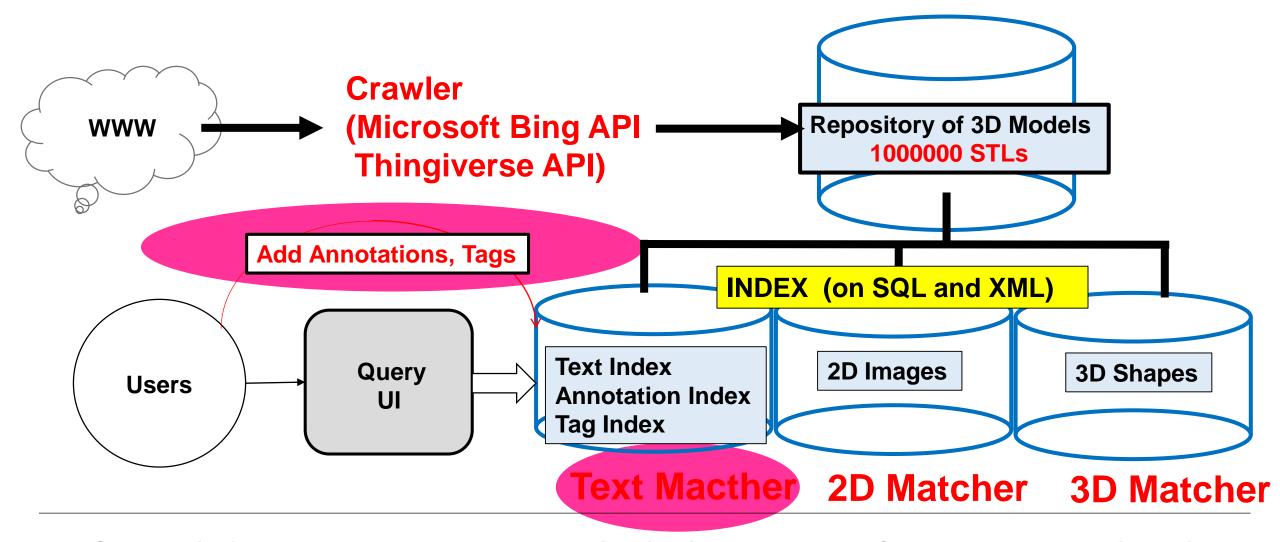


AMF Editing (under license of Creative Commons)



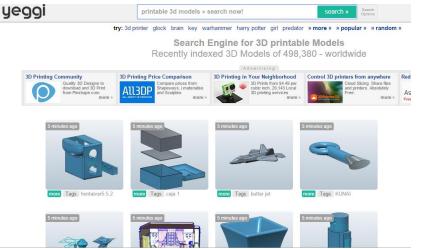
K-means Segmentation Methods

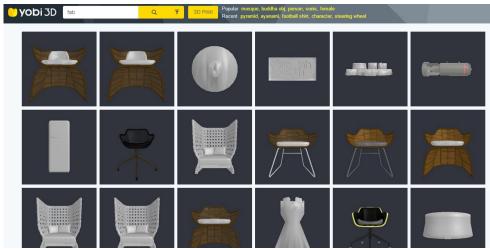
3D Object Retrieval

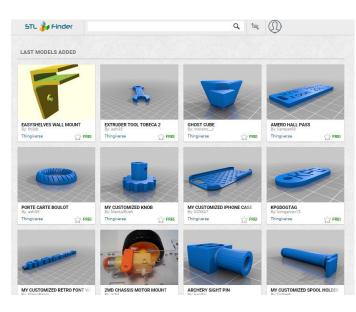


[&]quot;A Search Engine for 3D Models", Thomas Funkhouser, Patrick Min, Misha Kazhdan, Joyce Chen, Alex Halderman, David Dobkin, Princeton University David Jacobs NEC Research Institute

Related Systems







www.yeggi.com

www.yobi3d.com/

http://www.stlfinder.com/

来週までの課題

手に取れる楽器のプロトタイプをつくってくること