Visual Content Intelligence
A visual explosion

2.5 billion photos shared on Facebook per week

Brands say visual content is the most important content for their goals*

Only able to devote a few hours per week to creating new visuals†

Source: *HubSpot, 2017, †Vengage
Workflows **transformed** by machine learning

Data doesn’t cut it

Need to **understand** it
Workflows **transformed** by machine learning

10,000+ Objects, Context & Emotions

- "Chair"
- "Indoors" "Togetherness"
- "Person" "Jumping" "Playfulness"
- "Boat" "At Sea" "Adventure"

Convolutional Neural Network
foap.com’s **machine learning** workflow

User uploads photo to foap.com via desktop or mobile

10,000+ Objects, Context & Emotions

Image or video sent to Clarifai API

JSON response with metadata and keywords

Added to marketplace with metadata

<table>
<thead>
<tr>
<th>PREDICTED CONCEPT</th>
<th>PROBABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>nature</td>
<td>0.998</td>
</tr>
<tr>
<td>squirrel</td>
<td>0.985</td>
</tr>
<tr>
<td>rodent</td>
<td>0.982</td>
</tr>
<tr>
<td>wildlife</td>
<td>0.982</td>
</tr>
<tr>
<td>wood</td>
<td>0.977</td>
</tr>
<tr>
<td>tree</td>
<td>0.973</td>
</tr>
</tbody>
</table>
foap.com improves **discoverability**

- Maximize photo sales by improving discoverability
- Eliminate manual tagging processes
- Monetize long-tail

<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>Dog</td>
<td>0.89</td>
</tr>
<tr>
<td>Sunset</td>
<td>0.87</td>
</tr>
<tr>
<td>Playfulness</td>
<td>0.79</td>
</tr>
</tbody>
</table>
Automatically adding context and understanding

General Understanding

<table>
<thead>
<tr>
<th>Predicted Concept</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Football</td>
<td>0.99</td>
</tr>
<tr>
<td>Competition</td>
<td>0.98</td>
</tr>
<tr>
<td>Athlete</td>
<td>0.95</td>
</tr>
<tr>
<td>Action</td>
<td>0.84</td>
</tr>
<tr>
<td>Stadium</td>
<td>0.83</td>
</tr>
</tbody>
</table>
Automatically adding **context and understanding**

Demographic Understanding

<table>
<thead>
<tr>
<th>PREDICTED CONCEPT</th>
<th>PROBABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masculine</td>
<td>0.98</td>
</tr>
<tr>
<td>29 years old</td>
<td>0.70</td>
</tr>
<tr>
<td>Hispanic, Latino or Spanish origin</td>
<td>0.83</td>
</tr>
</tbody>
</table>
Automatically adding **context and understanding**

**Logo Detection**

**Facial Recognition**

Many More
- Nudity Filter
- Color
- Blurriness
- Travel
- Wedding
- etc..

<table>
<thead>
<tr>
<th>PREDICTED CONCEPT</th>
<th>PROBABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cristiano Ronaldo</td>
<td>0.97</td>
</tr>
<tr>
<td>Real Madrid</td>
<td>0.99</td>
</tr>
<tr>
<td>Adidas</td>
<td>0.77</td>
</tr>
</tbody>
</table>
Emerging trends in stock photo

“Virtual Reality”

“Equality”

“Drones”

“Global View”

“Connectivity”

“The 90’s”

Source: StockPhotoSecrets, 2017 Photography Trends
“The 90s”

Search: “The 90’s”
Get **ahead** of the buying curve

“**The 90’s**”

Clarifai learns specific concepts

“**Connectivity**”

New Image

“**The 90’s**”
Architizer.com makes visual search a **UX priority**

- Innovative UX
- "You know it when you see it"
- Find related content
- Match consumer expectations

“We’ve been evaluating image recognition and learning for 3 years now. The Clarifai team and product were always on the leading edge and, with the release of their custom training and similar image API, are now our solution of choice.”

- Peter, CPO, Architizer.com

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Unilever | trivago | POND5 | CURALATE | 500px | BuzzFeed
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Stackla | Style Me Pretty | Extensis | foap | veritone
Become an educated A.I. buyer

What does the A.I. actually recognize?

Can we teach it?

Which media formats are supported? Video? VR? 360?

When there’s a problem at 3am, who can you call?
Thank You

mike@clarifai.com
Architizer.com’s **Visual Search** workflow

Image is used as the search query, no metadata required

Clarifai searches across an indexed library of images for similar qualities

- 99.9% (duplicate)
- 83%
- 77%
- 45%
Trivago forecasts the search experience