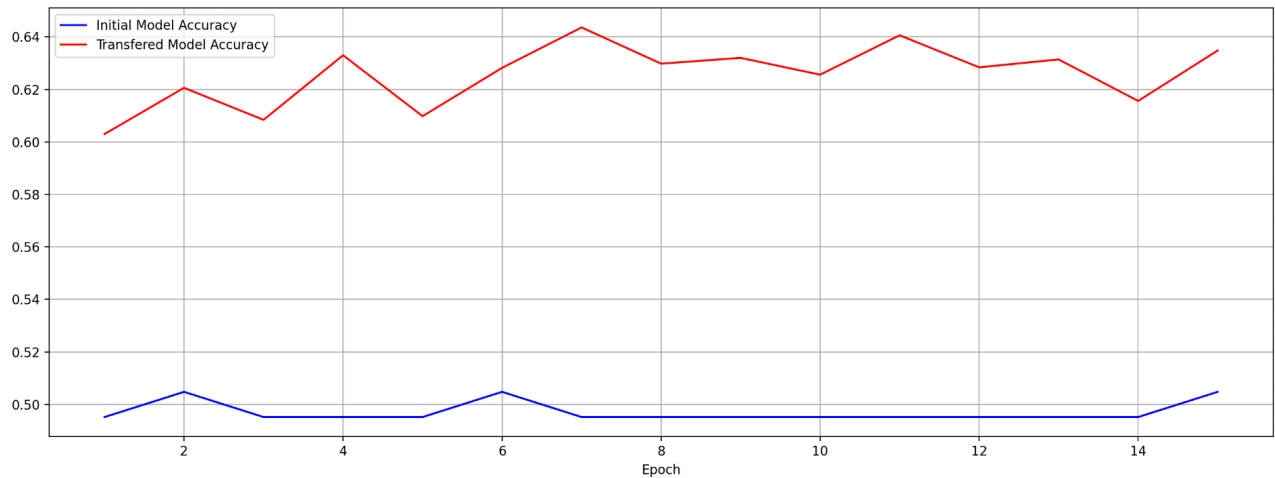<u>**Section 8: Transfer Learning – Far Transfer from Facial Recognition to Cats vs Dogs**</u>

1. **Validation Accuracy Plot**
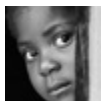

2. **Final Test Accuracy**

Model	Test Accuracy	Test Loss
With transfer	0.6308 (63.08%)	0.6474
Without transfer	0.5000 (50.00%)	0.6931

3. **Images**

Facial Expression Classes:

- Neutral (Train)

- Neutral (Test)

- Happy (Train)

- Happy (Test)

- Surprise (Train)

- Surprise (Test)

Transfer Task Classes (Cats vs Dogs)

- Cats (Train)

- Dogs (Train)

3. Model Summaries

- **With Transfer (TransferedModel)**

Model: "sequential"

Layer (type)	Output Shape	Param #
model (Functional)	(None, 64)	101824
dense (Dense)	(None, 64)	4160
dropout (Dropout)	(None, 64)	0
dense_1 (Dense)	(None, 2)	130

Total params: 106,114
Trainable params: 4,290
Non-trainable params: 101,824

- **Without Transfer (RandomModel)**

Model: "sequential_1"

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Layer (type)	Output Shape	Param #
model_1 (Functional)	(None, 64)	101824
dense_2 (Dense)	(None, 64)	4160
dropout_1 (Dropout)	(None, 64)	0
dense_3 (Dense)	(None, 2)	130

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Total params: 106,114
Trainable params: 4,290
Non-trainable params: 101,824

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