```
In [12]:  import cv2
          import numpy as np
          import matplotlib.pyplot as plt
```

```
In [13]:  img = cv2.imread("kidred.jpg", cv2.IMREAD_COLOR)
          cv2.imshow("Original", img)
          cv2.waitKey(0)
          cv2.destroyAllWindows()
          imgOut = img.copy()
          eyesCascade = cv2.CascadeClassifier(cv2.data.haarcascades + 'haarcascade_eye.xml')
          eyes = eyesCascade.detectMultiScale(img,scaleFactor=1.3, minNeighbors=4, minSize=(100, 100))
```

```
In [14]:  for (x, y, w, h) in eyes:
              eye = img[y:y+h, x:x+w]
              b = eye[:, :, 0]
              g = eye[:, :, 1]
              r = eye[:, :, 2]
              bg = cv2.add(b, g)
              mask = (r > 150) &  (r > bg)
              mask = mask.astype(np.uint8)*255
```

```
In [15]:  def fillHoles(mask):
              maskFloodfill = mask.copy()
              h, w = maskFloodfill.shape[:2]
              maskTemp = np.zeros((h+2, w+2), np.uint8)
              cv2.floodFill(maskFloodfill, maskTemp, (0, 0), 255)
              mask2 = cv2.bitwise_not(maskFloodfill)
              return mask2 | mask
```

```
In [16]:  mask = fillHoles(mask)
          mask = cv2.dilate(mask, None, anchor=(-1, -1), iterations=3, borderType=1, borderValue=1)
```

```
In [11]:  plt.imshow(imgOut)
```

```
Out[11]:  <matplotlib.image.AxesImage at 0x2503ae729a0>
```