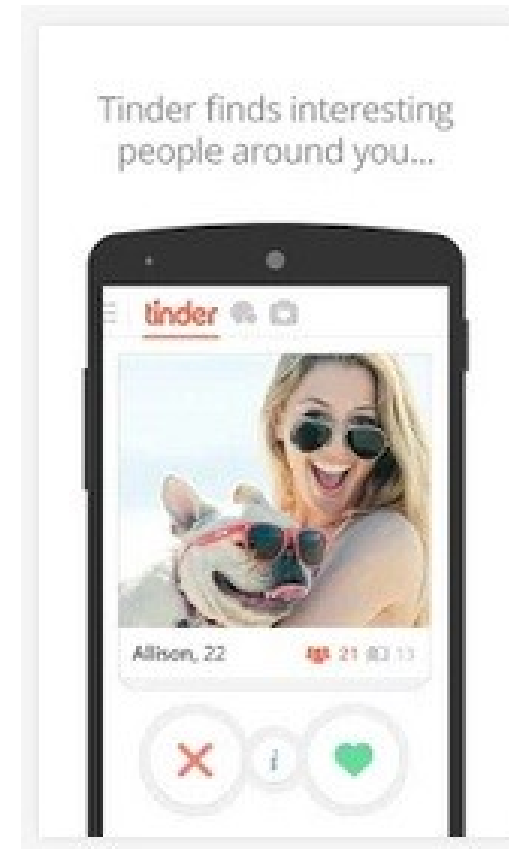


CS 193A

Mouse Gestures and Swiping

Swiping

- **swipe:** Sliding the finger in a given direction.
 - Commonly used in mobile apps to accept/reject, delete, dismiss
 - Most common use case:
 - swipe left (no, negative, delete), or
 - swipe right (yes, positive, approve)



Swipe support in Android

- Android doesn't really have great support for swiping.
- You can detect mouse **touch events** and motion, but the threshold of what constitutes a "swipe", and how to respond to it, is up to you.

```
public class MyActivity extends Activity
    implements OnTouchListener {

    @Override
    public boolean onTouch(View view, MotionEvent event) {
        ...
    }
}
```

A gesture listener

- You can write a "gesture listener" to listen to mouse swipes:
 - The listener won't do anything until you attach it (*next slide*).

```
class GestureHelper extends SimpleOnGestureListener {
    @Override
    public boolean onFling(MotionEvent e1, MotionEvent e2,
                          float velocityX, float velocityY) {
        // did the mouse move far enough, fast enough?
        ...
    }
}
```

Listening for swipe gestures

- You have to use a "gesture detector" with your listener:

```
public class Name extends Activity implements OnTouchListener {  
    private GestureDetector gesture;  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        gesture = new GestureDetector(this,  
                                     new GestureHelper());  
    }  
  
    @Override  
    public boolean onTouchEvent(View v, MotionEvent e) {  
        return gesture.onTouchEvent(v, e);  
    }  
}
```

Simplified swipe library

- The instructor provides an OnSwipeListener library to make things simpler (*see class web site*):

```
// write whichever of the onSwipe___ methods you want
view.setOnTouchListener(new OnSwipeListener(this) {
    public void onSwipeLeft(float distance) { ... }
    public void onSwipeRight(float distance) { ... }
    public void onSwipeUp(float distance) { ... }
    public void onSwipeDown(float distance) { ... }
});
```

SwipeListView library

- SwipeListView library implements a swipe-able list:
 - <https://github.com/47deg/android-swipelistview>

