

Events and Feedback

No screens



Prof. Lydia Chilton
COMS 4170
7 February 2018

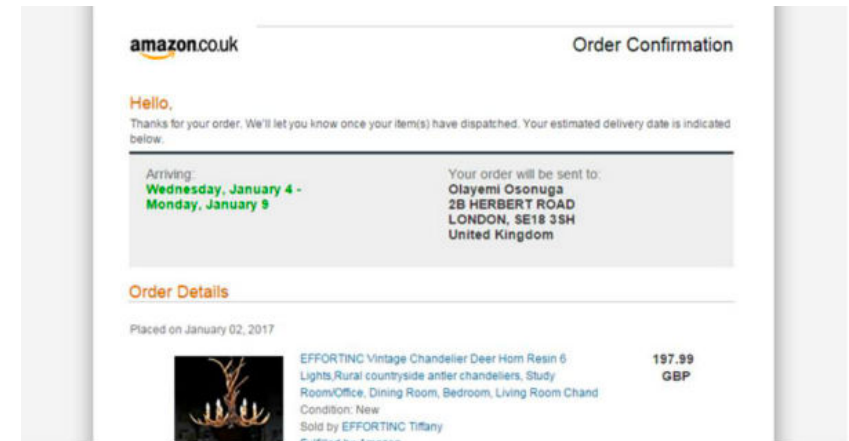
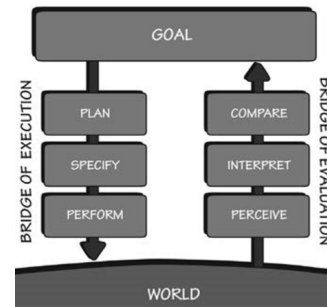
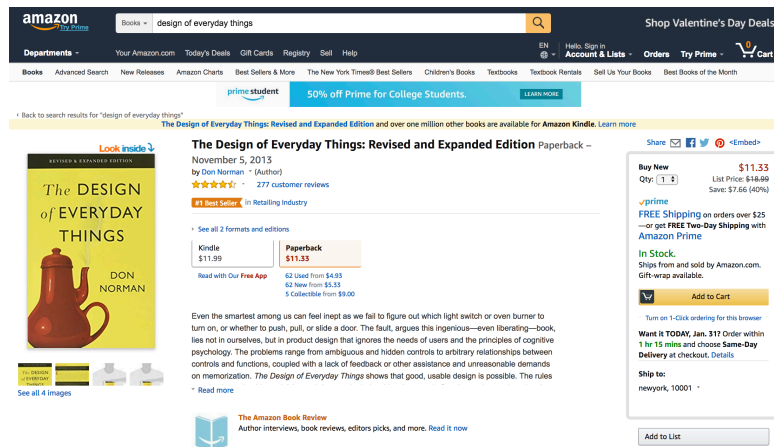
Say your name



Goal 1

Build websites that suit the needs and abilities of users

To accomplish a goal, users must **execute** an operation and **evaluate** the result



To help users **evaluate the result**, designers must provide **feedback**.

What goes wrong when you provide **no feedback**?



Users are **confused** about whether their goal has been achieved, and they continue to **expend energy** to accomplish the goal.

What goes wrong when you provide **too little feedback?**

Submit Credit Card Payment

Order Summary

Total
\$412.97

Items

Description	Category	Qty	Unit Price	Amount
Mobile device for demos	Hardware	2	\$150.00	\$300.00
Video software upgrade	Software	1	\$50.99	\$50.99
Device accessories	Miscellaneous	2	\$30.99	\$61.98
			Total	\$412.97
				5 items

Payment Information

Information incorrect

Card Number *

Expiration Date *

CCV *

[PLACE YOUR ORDER](#)

Credit card transactions are handled by our secure payment processor. We do not store your credit card information.

When you click the 'Place Your Order' button, we'll send you an email message acknowledging receipt of your order. Your contract to purchase an item will not be complete until we send you an email notifying you that the item has been shipped.

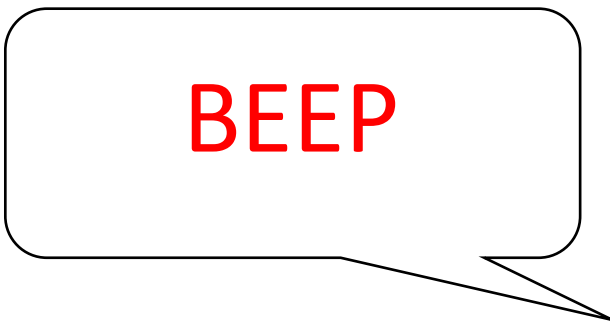
[CONTINUE](#)

Users know something has happened, but they don't know what. They must expend energy to find out what happened and what to do.

else



What goes wrong when you provide **too little feedback**?



Users know something has happened, but they don't know what.
They must expend energy to find out if it's important.

What goes wrong when you provide **too much feedback**?



I am now booking your flight

I am now using Google flight search

I am now typing JFK into the departure location

I am now typing LAX into the arrival location

I am now selecting February 26, 2018 from the departure date box

I am now confirming the date I just selected from the Departure date box

When there is too much feedback,
Some of the feedback is not important to the users goal
and they may **ignore *all the feedback***.

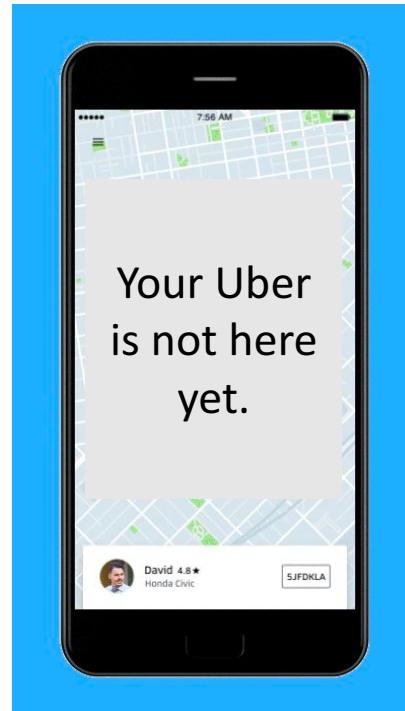
What goes wrong when **feedback too late**?



By the way, I booked that flight you asked for yesterday!

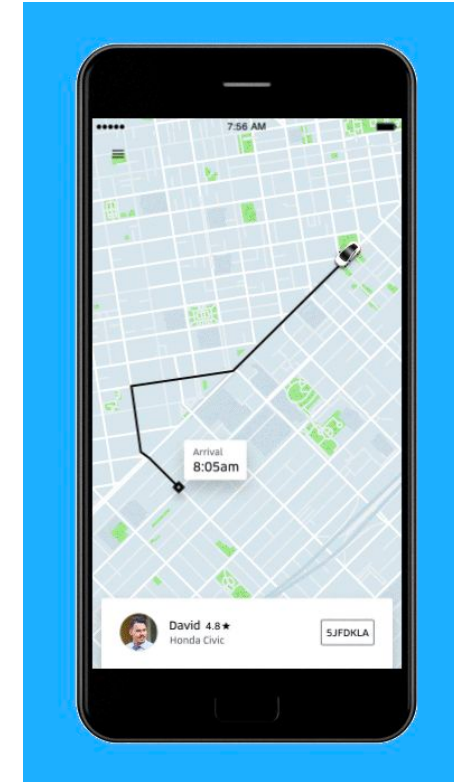
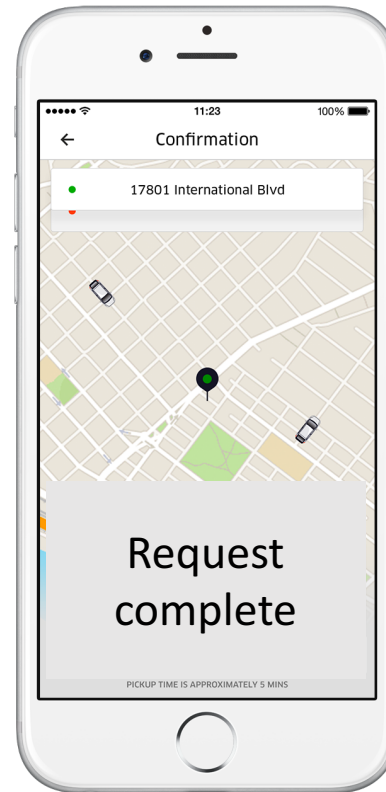
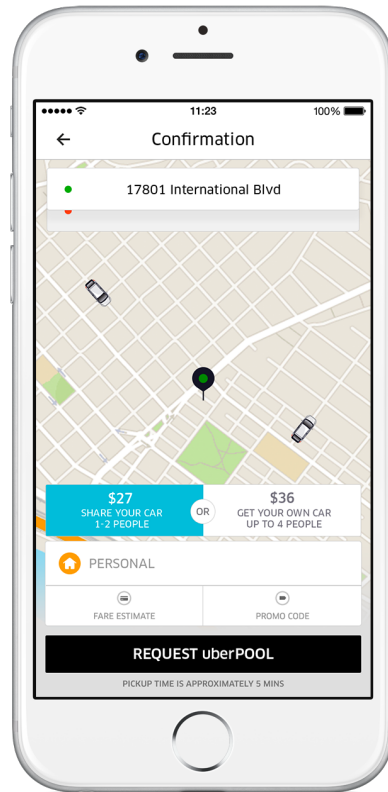
Users assume that no feedback means no action
And they find another way to accomplish the goal.

What goes wrong when **feedback is not continuous**?



Users have to poll the system for feedback frequently.

What goes wrong when feedback acknowledges the action but **does not communicate the new state**?



Users will continue to perform actions from the previous state

Design goals for feedback:

Communicate **full and continuous** information about
the **results of an action**
and the **current state of the system**
to help people achieve their goal

Ways of perceiving feedback

How do we perceive this feedback?

BEEP



I'm sorry, Dave.
I'm afraid I can't do that.



How do we perceive this feedback?

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Total				\$412.97

5 items

Payment Information

Information incorrect

Card Number *

Expiration Date *

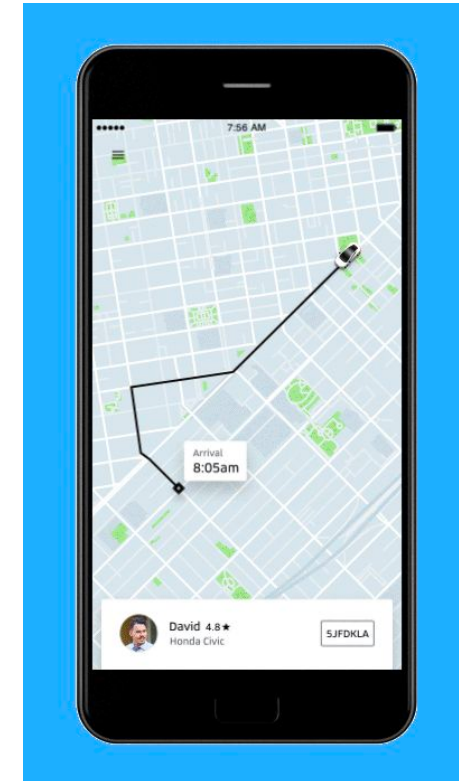
CCV *

[PLACE YOUR ORDER](#)

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When you click the 'Place Your Order' button, we'll send you an email message acknowledging receipt of your order. Your contract to purchase an item will not be complete until we send you an email notifying you that the item has been shipped.

[CONTINUE](#)



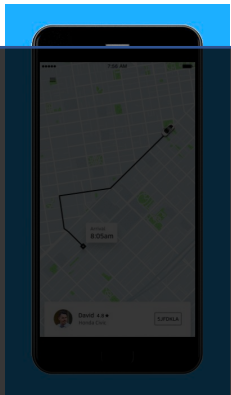
How do we perceive this feedback?



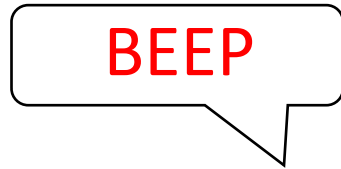
How do we perceive this feedback?



The human nervous system is designed to perceive feedback in many forms.



Sight



Sound

Use it.

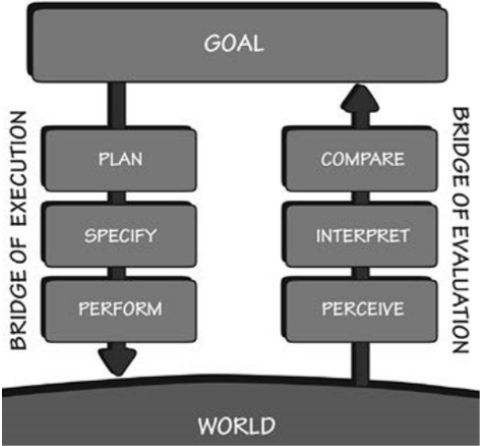


Smell

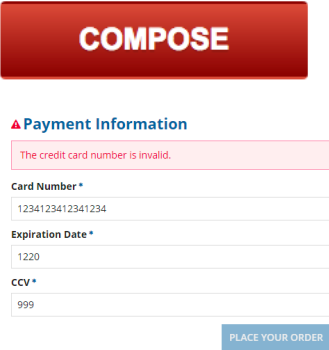


Touch

Every time the user executes an action, the interface should provide feedback

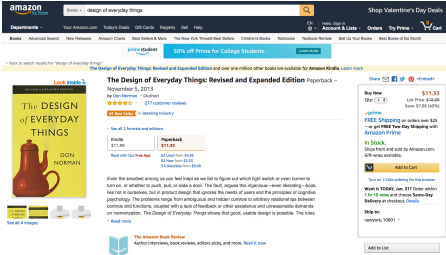


Low-level physical actions, like pressing a key



Low-level virtual actions, like clicking a button

Mid-level actions, like filling out a form



High-level actions, like buying a book

Low-level user actions are represented in the system as **events**.

Action



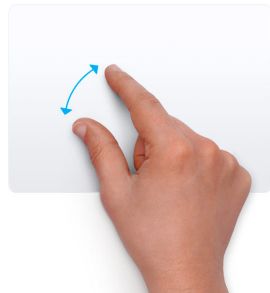
Event

Keypress event



Mousemove event

Mousepress event



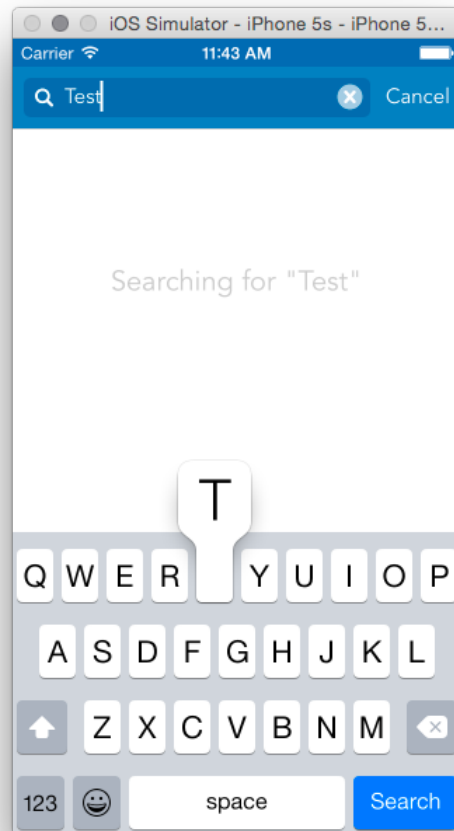
Pinch gesture event

Physical Input Events and Feedback

Keypress event feedback?



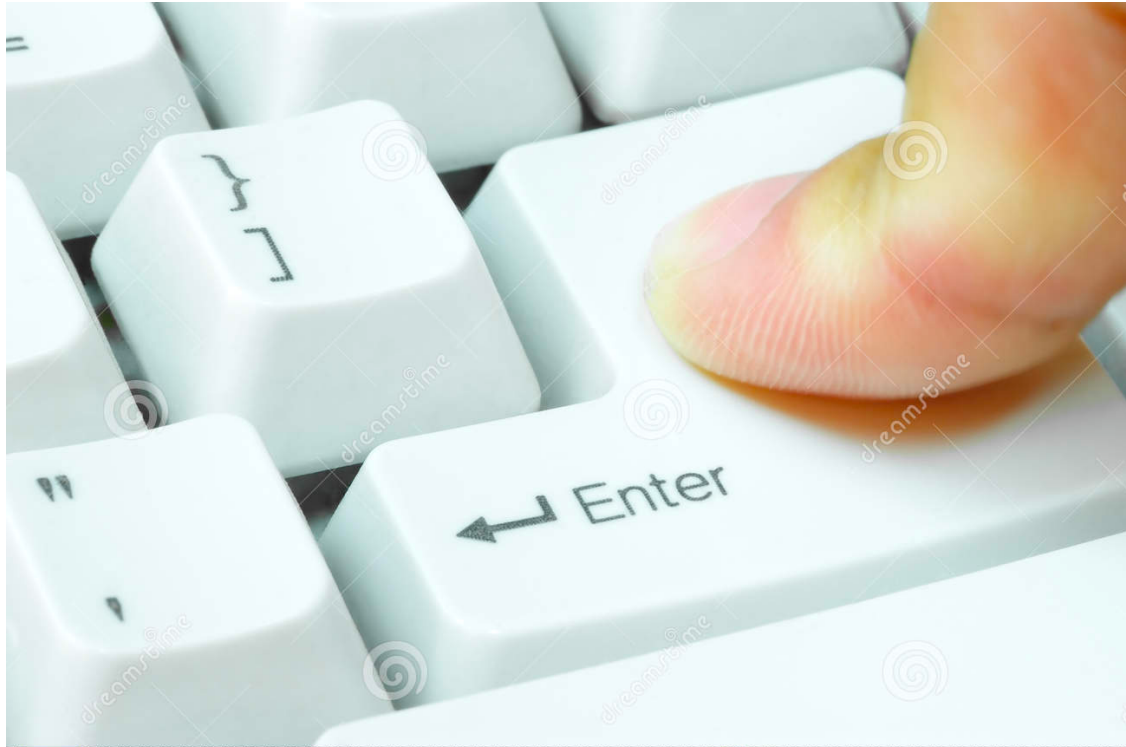
Soft Keypress event feedback?



Keydown event feedback?



Keyup event feedback?



Mousemove event feedback?



Mousedown event feedback?



Low-level Events and Feedback

Button click event feedback

Normal state



COMPOSE

```
.T-I-KE {  
  background-color: ■ #d14836;  
}
```

Button click event feedback

Normal state



```
.T-I-KE {  
  background-color: #d14836;  
}
```

Mouseover
feedback



```
.T-I-KE.T-I-JW {  
  background-color: #c53727;  
}
```

Button click event feedback

Normal state



```
.T-I-KE {  
  background-color: #d14836;  
}
```

Mouseover
feedback



```
.T-I-KE.T-I-JW {  
  background-color: #c53727;  
}
```

Mousedown
feedback



```
background-image: linear-gradient(to  
bottom, #dd4b39, #400000);
```

Button click event feedback

Normal state



```
.T-I-KE {  
  background-color: #d14836;  
}
```

Mouseover
feedback



```
.T-I-KE.T-I-JW {  
  background-color: #c53727;  
}
```

Mousedown
feedback



```
background-image: linear-gradient(to  
bottom, #dd4b39, #400000);
```

Mouseup
feedback



```
.T-I-KE {  
  background-color: #d14836;  
}
```

How do you implement visual feedback?

Normal state



```
.T-I-KE {  
  background-color: #d14836;  
}
```

Mousedown



```
.T-I-KE.T-I-JW {  
  background-image: linear-gradient(to  
    bottom, #dd4b39, #400000);  
}
```

```
1 $(document).ready(function(){  
2   $("#compose_button").mousedown(function(){  
3  
4     //??????????  
5  
6   })  
7 })  
8
```

1. Register an event handler on the object
1. Change the style

How do you implement visual feedback?

Normal state



COMPOSE

```
.T-I-KE {  
  background-color: #d14836;  
}
```

Mousedown



COMPOSE

```
.T-I-KE.T-I-JW {  
  background-image: linear-gradient(to  
    bottom, #dd4b39, #400000);  
}
```

```
1 $(document).ready(function(){  
2   $("#compose_button").mousedown(function(){  
3     $(this).css("background-image", "linear-gradient(to bottom, #dd4b38, #400000)"  
4   )  
5   })  
6 })  
7 )  
8
```

Will this work to
change the style?

How do you implement visual feedback?

Normal state



COMPOSE

```
.T-I-KE {  
  background-color: #d14836;  
}
```

Mousedown



COMPOSE

```
.T-I-KE.T-I-JW {  
  background-image: linear-gradient(to  
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}
```

```
1 $(document).ready(function(){  
2   $("#compose_button").mousedown(function(){  
3  
4     //$(this).css("background-image", "linear-gradient(to bottom, #dd4b38, #400000)")  
5     $(this).addClass("compose_press_state")  
6  
7   })  
8 })
```

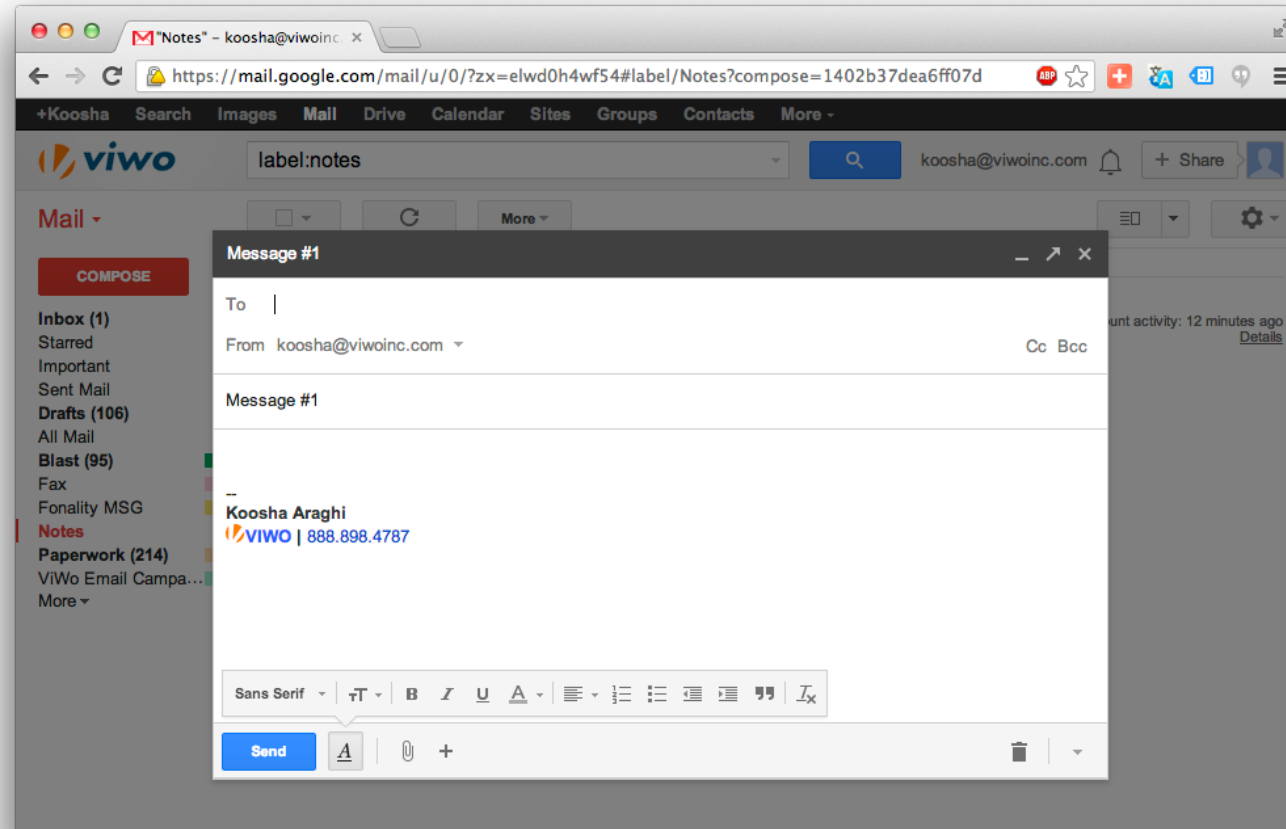
This way is better.
Why?

Mid-and High-level Action Feedback

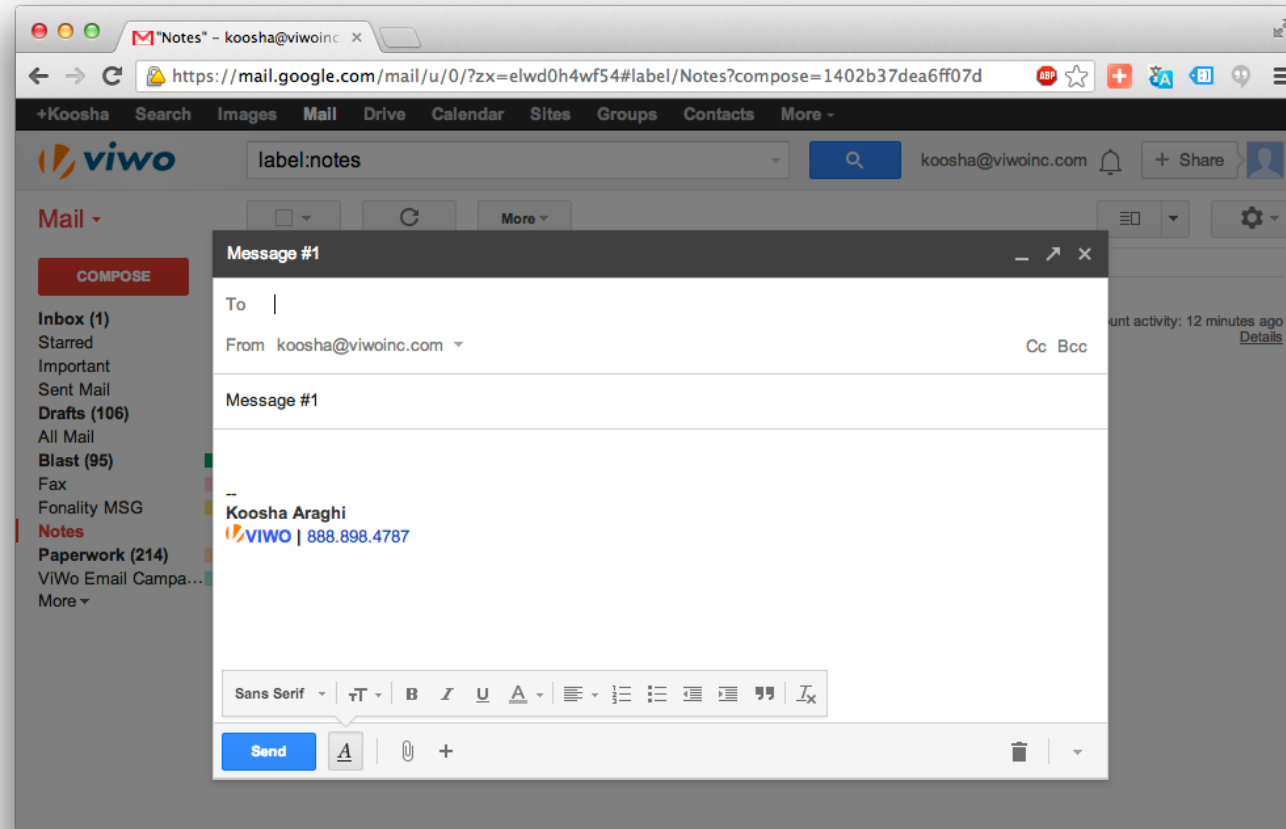
Feedback:

Communicate full and continuous information about
the **results of an action**
and the **current state of the system**
to help people achieve their goal

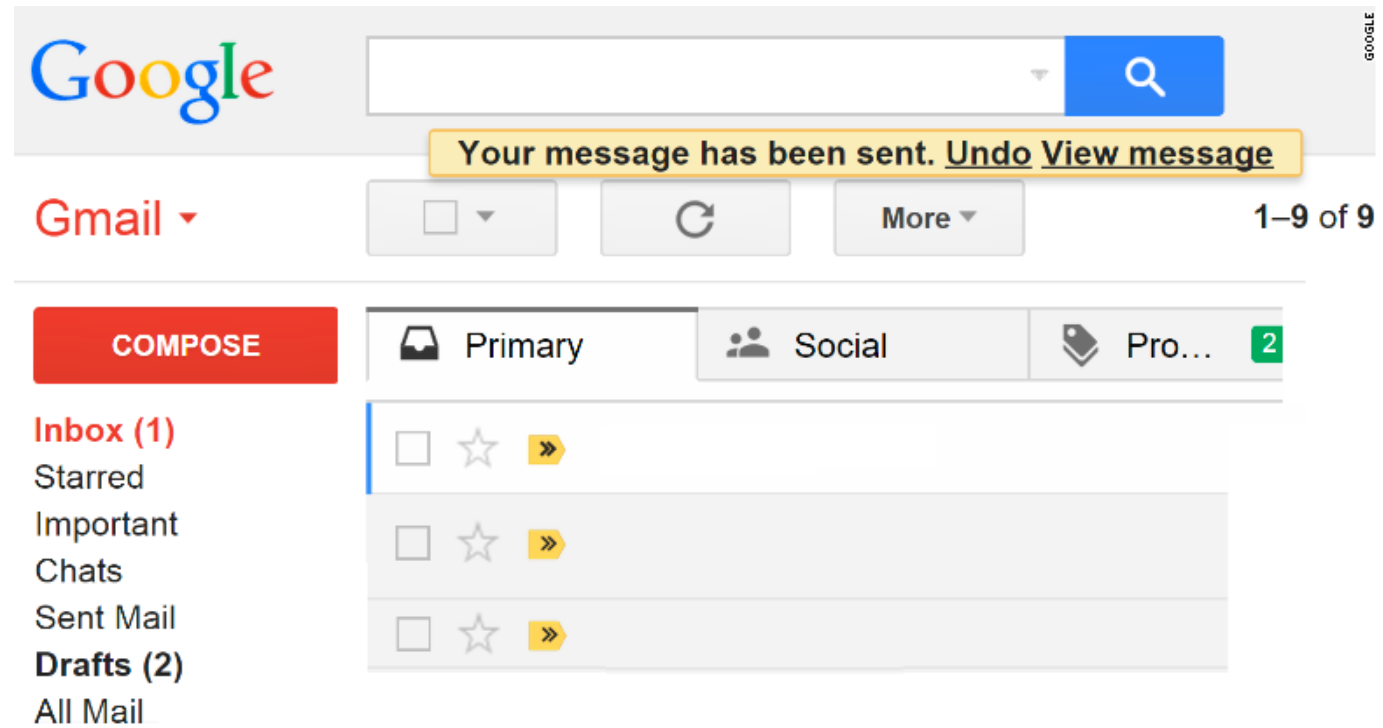
What action is this the result of?



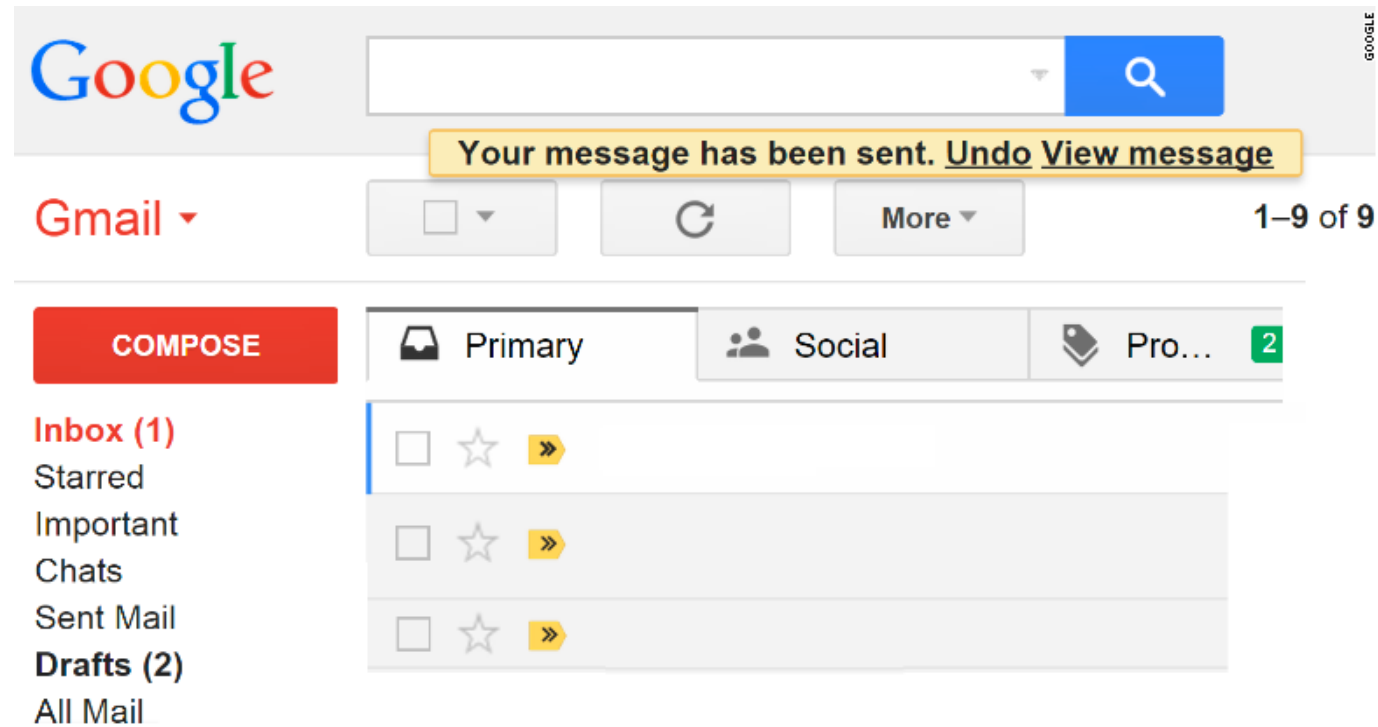
What is the new state?



What action is this the result of?



What is the new state?



What action is this the result of?

Submit Credit Card Payment

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Description	Category	Qty	Unit Price	Amount
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Video software upgrade	Software	1	\$50.99	\$50.99
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			Total	\$412.97

5 items

Payment Information

The credit card number is invalid.

Card Number *
1234123412341234

Expiration Date *
1220

CCV *
999

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[CONTINUE](#)

What is the new state?

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\$412.97

Items

Description	Category	Qty	Unit Price	Amount
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CCV *
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[CONTINUE](#)

How does it help the user accomplish their goal?

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CCV *
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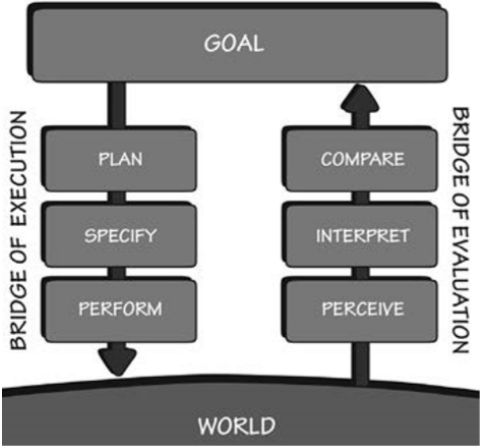
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CONTINUE

Every time the user executes an action, the interface should provide feedback



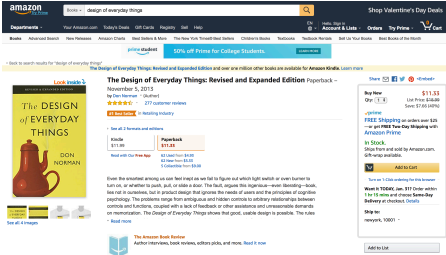
Low-level physical actions, like pressing a key



Low-level virtual actions, like clicking a button

A screenshot of a payment information form. It has a red header 'COMPOSE' and a section titled 'Payment Information'. A red error message says 'The credit card number is invalid.' Below are input fields for 'Card Number' (1234123412341234), 'Expiration Date' (1220), and 'CCV' (999). A blue 'PLACE YOUR ORDER' button is at the bottom.

Mid-level actions, like filling out a form



High-level actions, like buying a book

Even input events and low-level events have **full and continuous feedback** about actions and states



Click!
Depress!

Normal state

COMPOSE

Mouseover

COMPOSE

Mousedown

COMPOSE

Mouseup



COMPOSE

Normal state

COMPOSE

Final Thought on Feedback

Learning and interacting with systems like this sux. Why?

how to setup windows  

All Videos Images Shopping News More Settings Tools



About 22,600,000 results (0.59 seconds)

Clean Install

1. Enter your computer's BIOS. ...
2. Find your BIOS's boot options menu. ...
3. Select the CD-ROM drive as the first boot device of your computer. ...
4. Save the changes of the settings. ...
5. Shut off your computer. ...
6. Power on the PC and the insert the Windows 7 disc into your CD/DVD drive.
7. Start your computer from the disc.

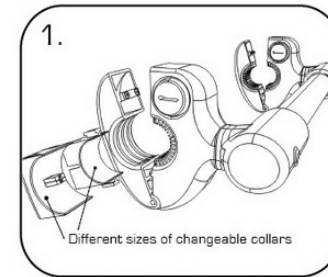
More items...

[How to Install Windows 7 \(Beginners\) \(with Pictures\) - wikiHow](https://www.wikihow.com/Install-Windows-7-(Beginners))
[https://www.wikihow.com/Install-Windows-7-\(Beginners\)](https://www.wikihow.com/Install-Windows-7-(Beginners))

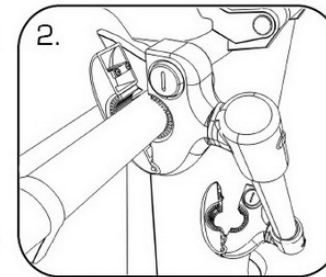
 About this result  Feedback

Fitting instructions

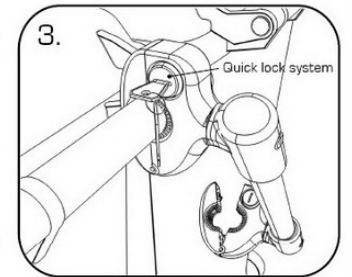
BINPIN



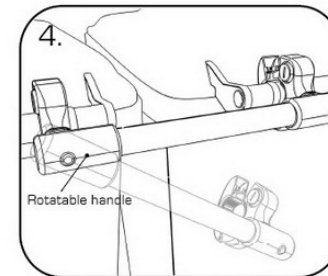
Ready clamp prior to fitting.



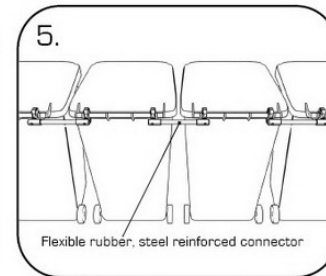
Latch one clamp to bin handle.



Secure and lock the clamp with key.

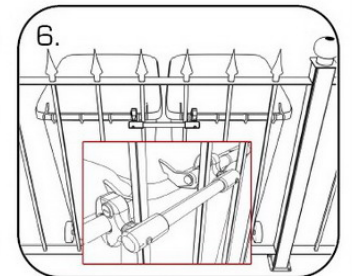


Snap the other clamp onto adjacent bin.




Flexible rubber, steel reinforced connector

Multiple bins can be secured together.



Multiple bins can be secured to railing.

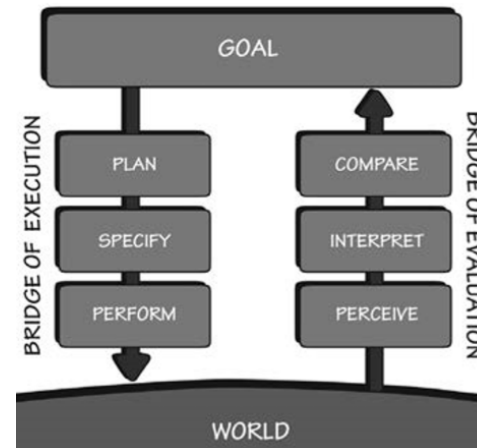
www.binpin.co.uk
Designed in Scotland and assembled in China

please recycle this packaging 

Summary

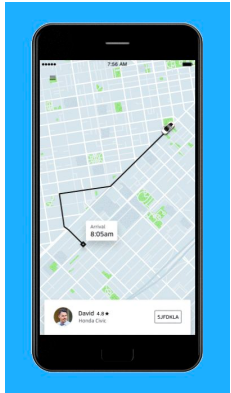
Feedback helps evaluate the result of an action

The screenshot shows the Amazon UK product page for 'The Design of Everyday Things: Revised and Expanded Edition' by Don Norman. The page includes the Amazon logo, search bar, navigation menu, and product details. The product is a paperback book, priced at \$11.33 (40% off the list price of \$18.89). It has a 4.5-star rating from 277 customer reviews and is the #1 best seller in the Retailing Industry. The page also features a 'Look inside' feature, a 'Read with Our Free App' button, and a 'Read more' link.

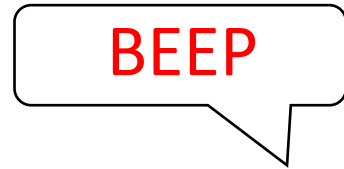


The screenshot shows the Amazon.co.uk Order Confirmation page. The page includes the Amazon logo, the text 'Order Confirmation', and a 'Hello,' greeting. It states: 'Thanks for your order. We'll let you know once your item(s) have dispatched. Your estimated delivery date is indicated below.' The arrival information is: 'Arriving: Wednesday, January 4 - Monday, January 9'. The shipping address is: 'Your order will be sent to: Olayemi Osonuga, 28 HERBERT ROAD, LONDON, SE18 3SH, United Kingdom'. The order details include: 'Placed on January 02, 2017', a small image of a chandelier, and the product name 'EFFORTINC Vintage Chandelier Deer Horn Resin 6 Lights, Rural countryside antler chandeliers, Study Room/Office, Dining Room, Bedroom, Living Room Chand'. The price is listed as '197.99 GBP'.

The human nervous system is designed to perceive feedback in many forms.



Sight



Sound

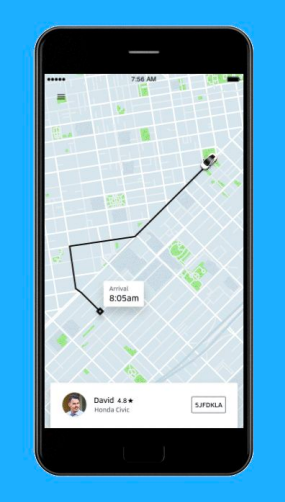


Smell



Touch

Design feedback that:
Communicates full and continuous information about the **results of an action**
and the **current state of the system**
to help people achieve their goal



Payment Information

The credit card number is invalid.

Card Number *

1234123412341234

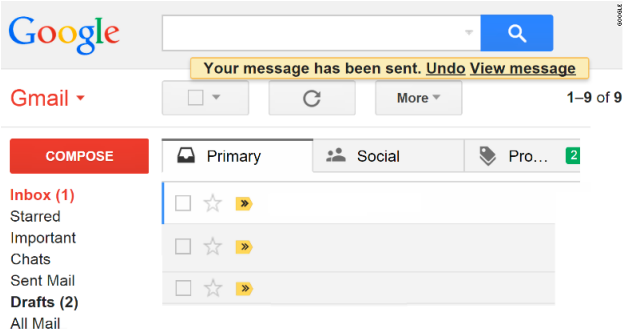
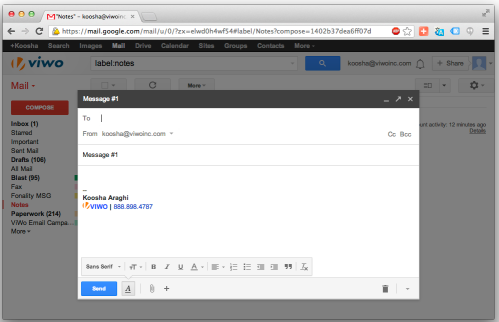
Expiration Date *

1220

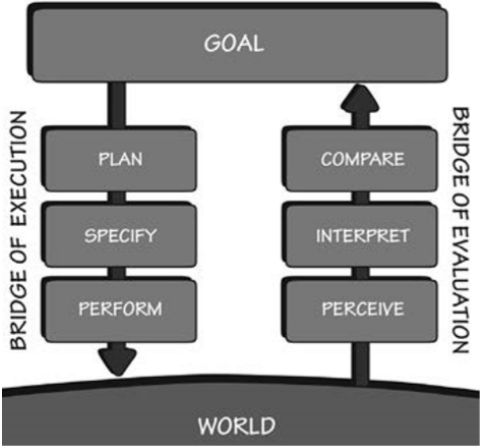
CCV *

999

PLACE YOUR ORDER



Every time the user executes an action, the interface should provide feedback



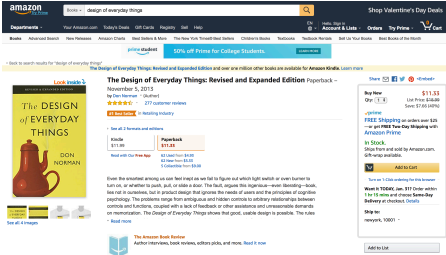
Low-level physical actions, like pressing a key



Low-level virtual actions, like clicking a button

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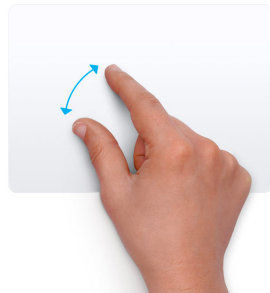
Mid-level actions, like filling out a form



High-level actions, like buying a book

Low-level user actions are represented in the system as **events**.

Action



Event

Keypress event

Mousemove event

Mousepress event

Pinch gesture event

Even low-level events have full and continuous feedback about actions and states



Click!
Depress!

Normal state

COMPOSE

Mouseover

COMPOSE

Mousedown

COMPOSE

Mouseup

COMPOSE

Normal state

COMPOSE