



HCI: STORYBOARDS, DESIGN PATTERNS AND WEB DESIGN

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First, the news...

- Admiral to price car insurance based on Facebook posts
 - <https://www.theguardian.com/technology/2016/nov/02/admiral-to-price-car-insurance-based-on-facebook-posts>
- And...
- Facebook forces Admiral to pull plan to price car insurance based on posts
 - <https://www.theguardian.com/money/2016/nov/02/facebook-admiral-car-insurance-privacy-data>



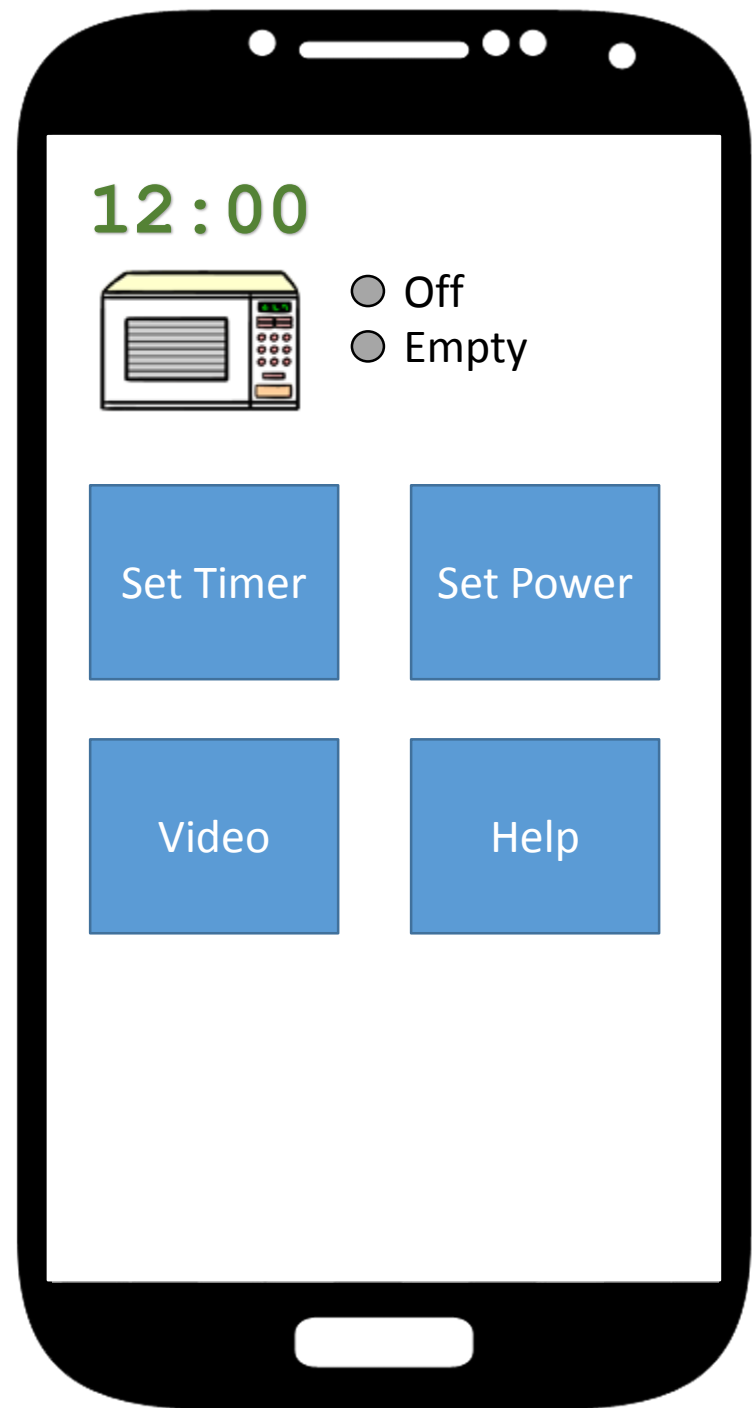
Facebook's policy says its data should not be used to "make decisions about eligibility, including whether to approve or reject an application or how much interest to charge on a loan".

From Monday...

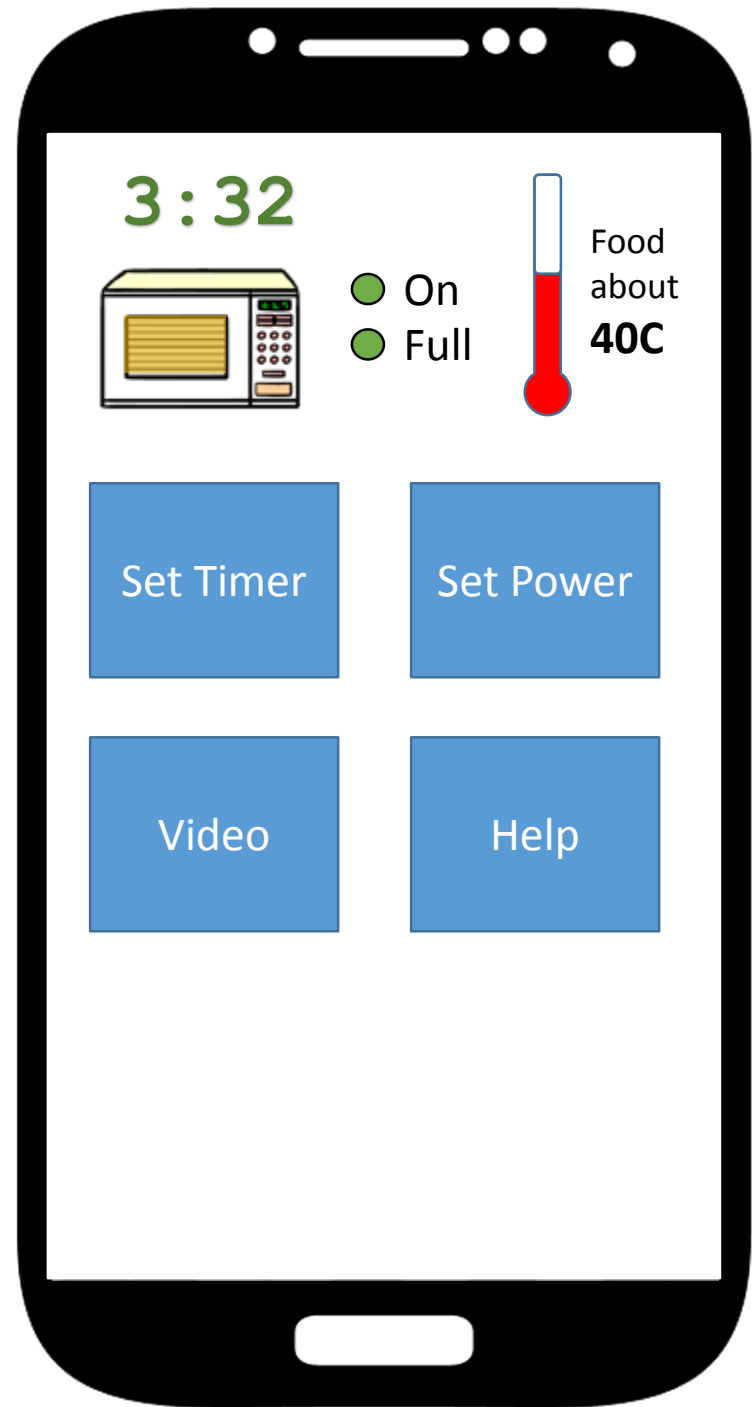
Microwave app requirements

- Display status of the microwave (off, on, full, empty)
- If full, see when the timer went off
- Read temperature of food
- Peek at food (video of food)
- Remotely set new power level and time
- Remotely start microwave

**Rough
approximation of
the microwave
app we
developed on
Monday**



**Rough
approximation of
the microwave
app we
developed on
Monday**



**So we have an idea, but it isn't really
thought through very well yet**

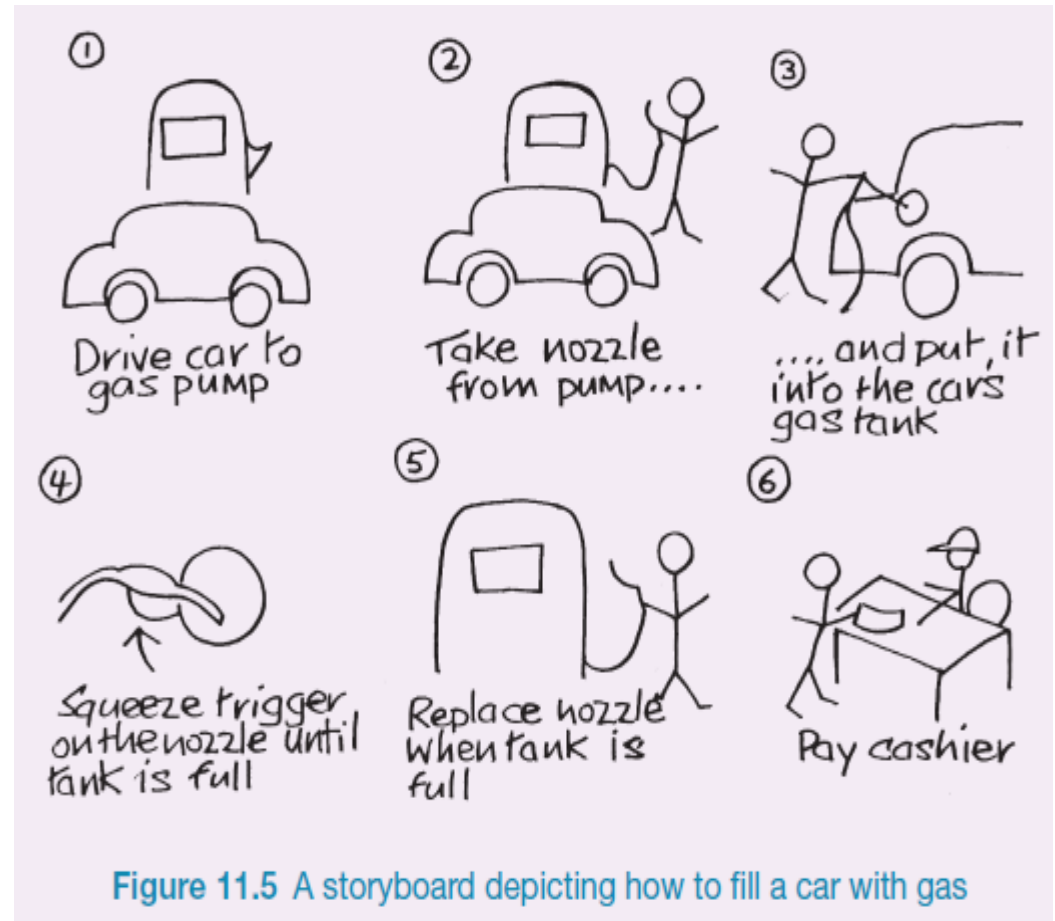
Storyboards

Storyboards

- Series of sketches showing how a user might interact with the technology or progress through a task
- Often used with a scenario to bring in more detail and context
- Pros
 - Simple to design by yourself
 - Makes you think through the process of how something will be used and identify needed features
 - Useful for communicating ideas
- Cons
 - Rough sketches, not everything can go in
 - Limited in scope, impractical to use on a whole project

Sketching

- Sketching is important to low-fidelity prototyping
- Don't be inhibited about drawing ability. Practice simple symbols



CHECKER APP (ALICE)

≡ Apps

- ☐ Recorder
- ☒ Rec+
- ☐ Flashlight
- ☐ Messenger
- ☐ Wallp
- ...

< Rec+

☐ [icon]

certificate
last updated:
last checked:

Install Analyse

1. download app.
2. generate cert / check cert
3. if ok, check policy

What policy profile?

- ☐ employer
- ☒ home

< Analysis

☐ [icon]

Policy violated!
Here's why:

- ☒ no bg data
- ☒ only on button
- ...

(depending on results)

≡ Policies

- employer
- home
- ...

≡ Policies

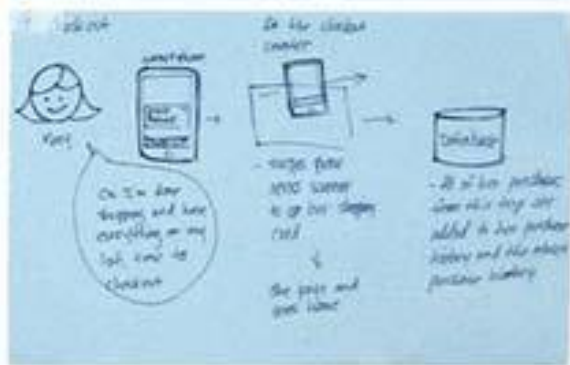
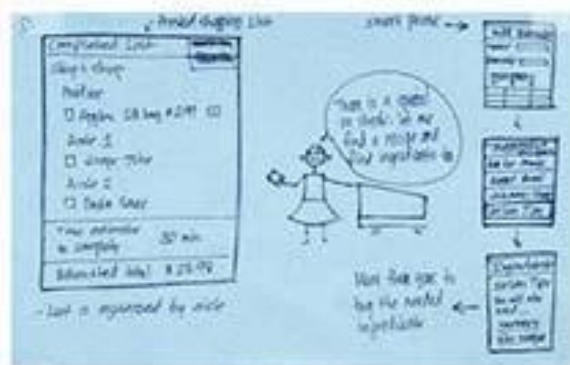
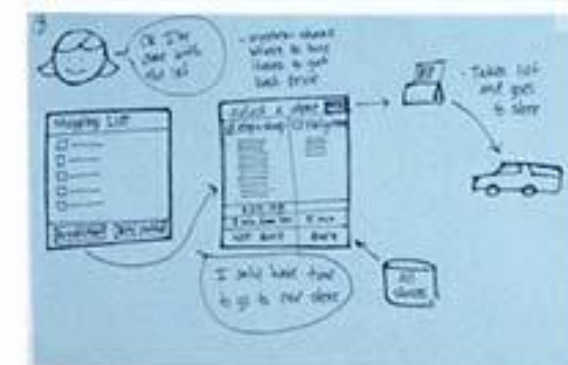
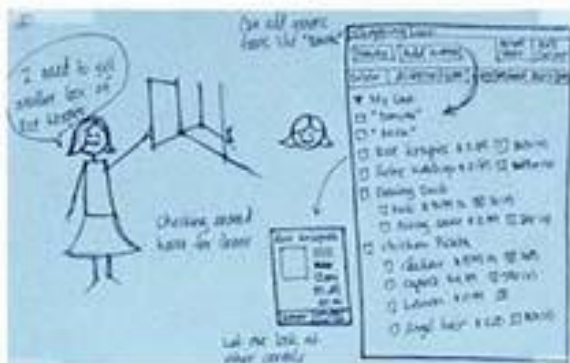
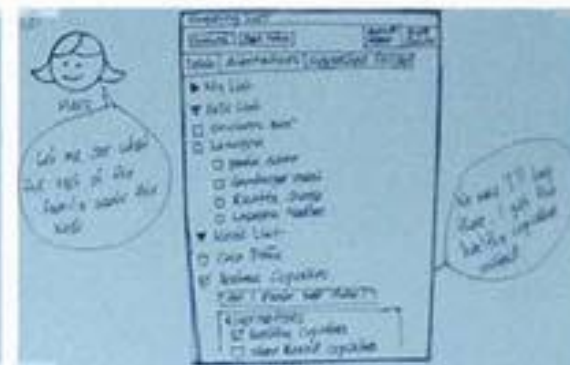
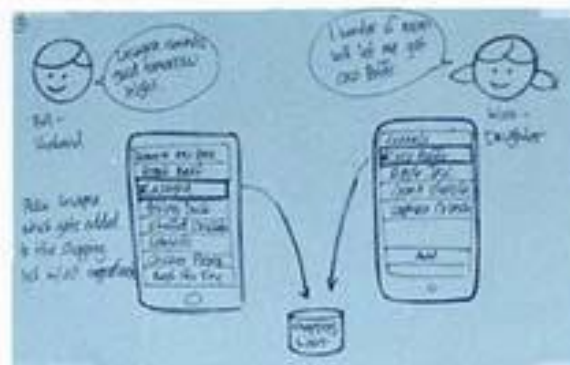
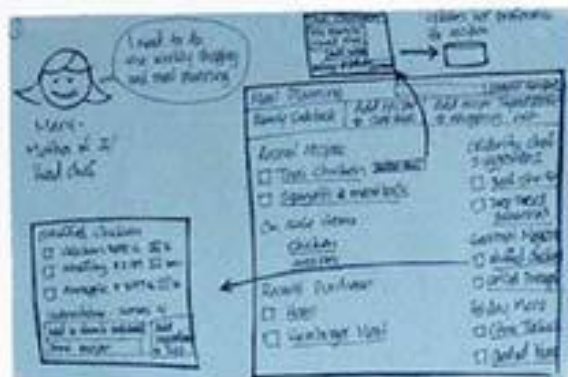
all apps

- ☒ no bg data
- ☐ change settings

media apps

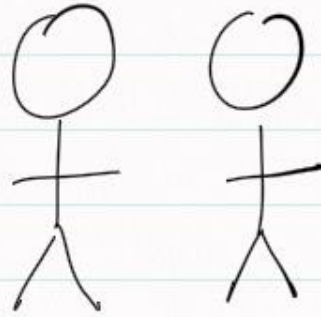
- ☒ only on button
- ☐ no SMS
- ...
- ☒ default

Edit Save



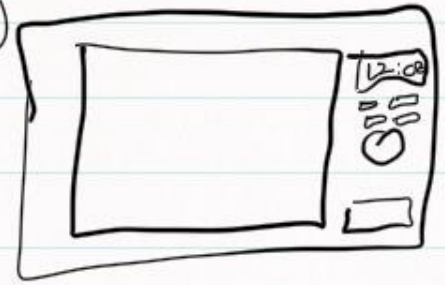
Storyboard around microwave app

①



Bob & Charlie
are roommates

②



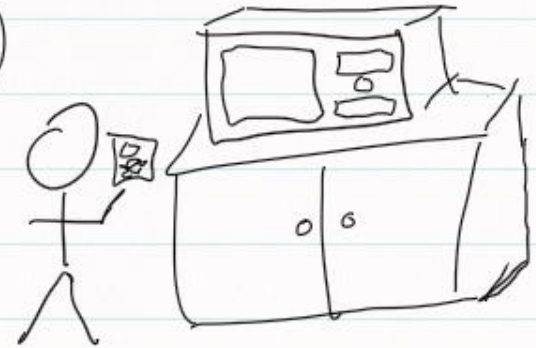
Who both use
their microwave to
cook Dinner

③






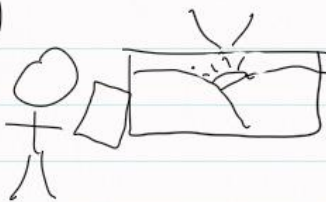


Bob downloads
the microwave app

④



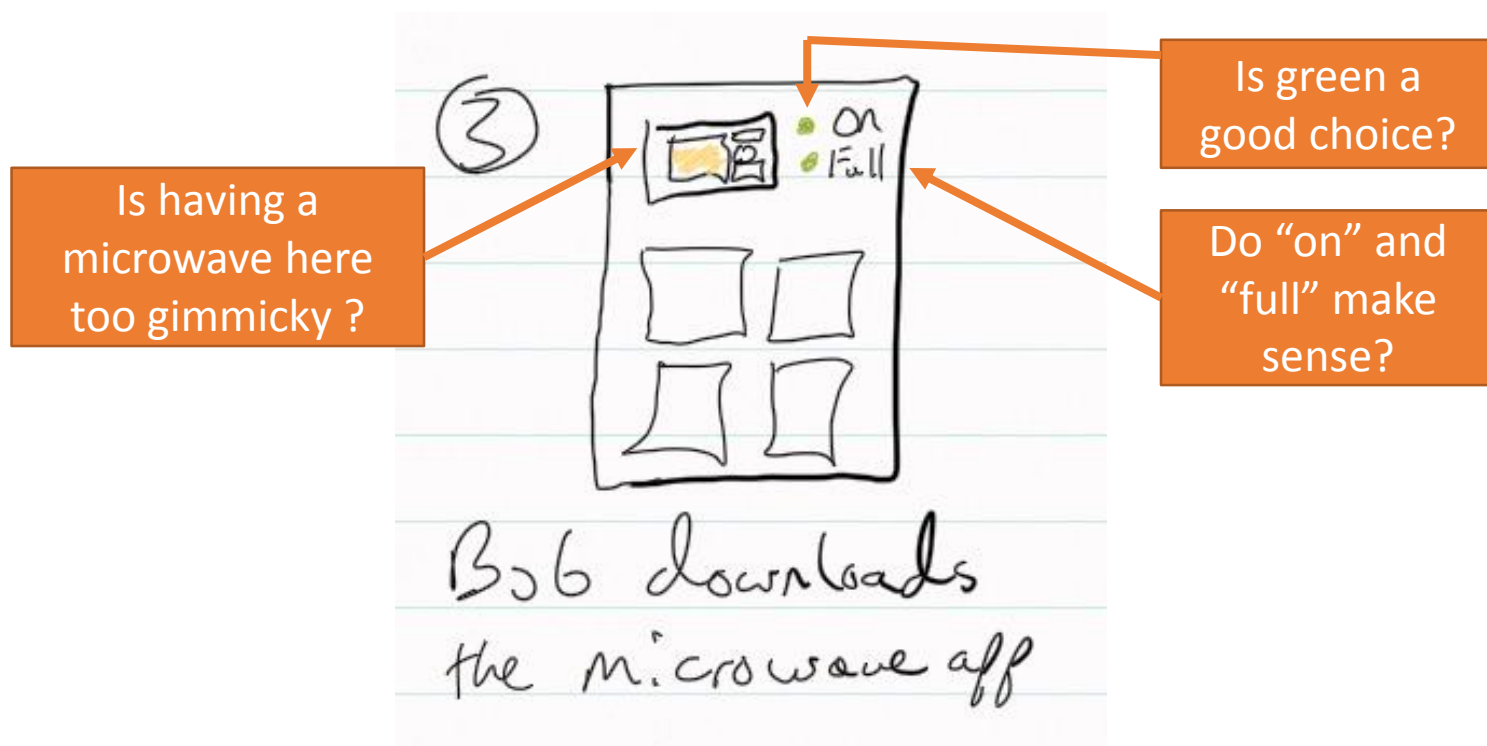
Bob tries all the
buttons on the
new app

**Tell a clear
story about
how
technology
will be used
in context**

- Bob makes Popcorn 
- ① 
Popcorn Says to
Microwave till the
Bag inflates
- ② 
Bob puts popcorn
in the Microwave
and starts it
- ③ 
Bob goes and
watches h.s movie
and the popcorn at
the same time
- ④ 
Bob sees the
bag expand and
hits stop
- ⑤ 
Bob eats
popcorn

You might have noticed that I can't draw

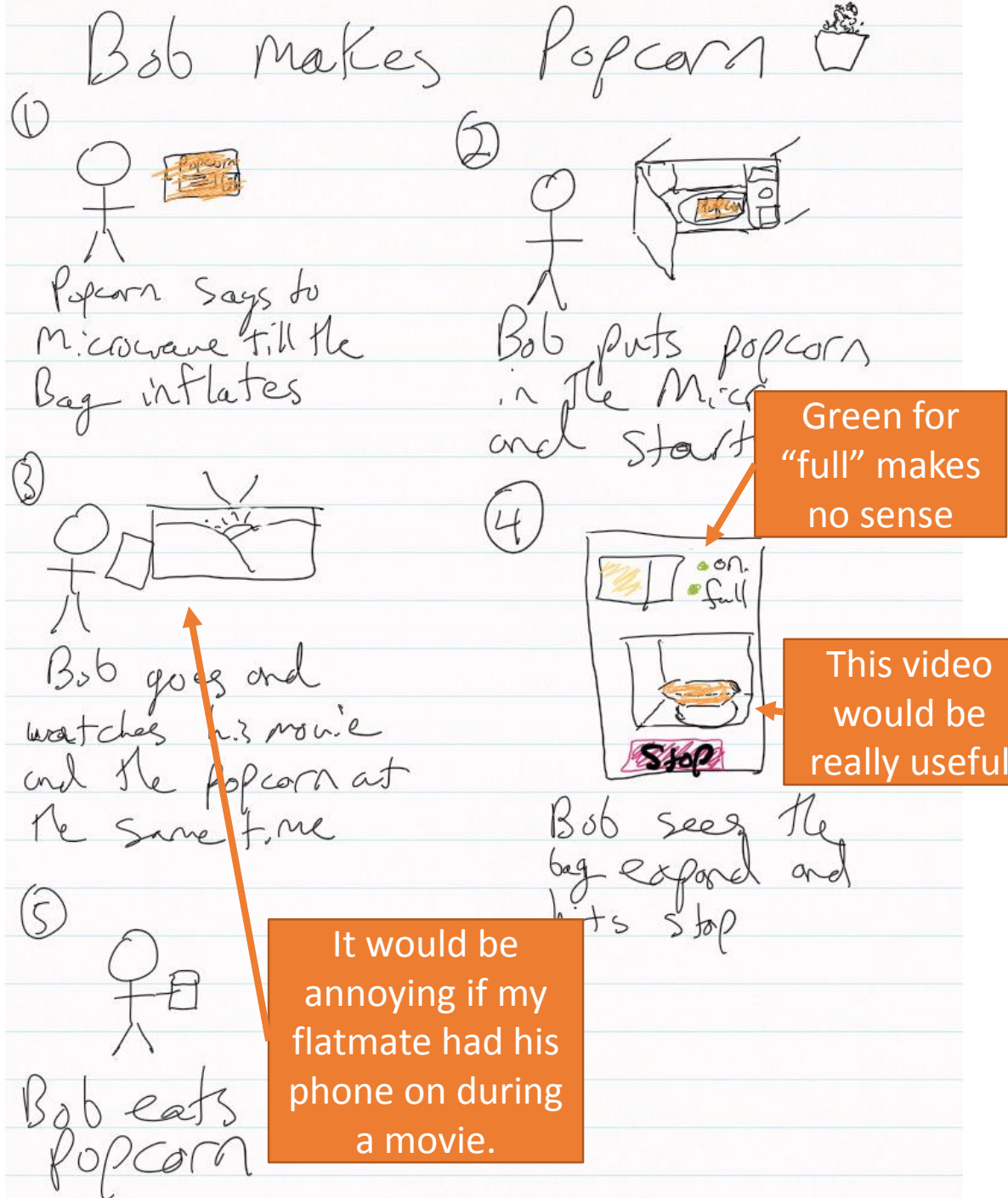
- That is ok. Storyboards do not need to be perfectly drawn, they just have to be clear enough to get the idea across
- Poorly drawn storyboards are actually better for getting feedback from users on important things



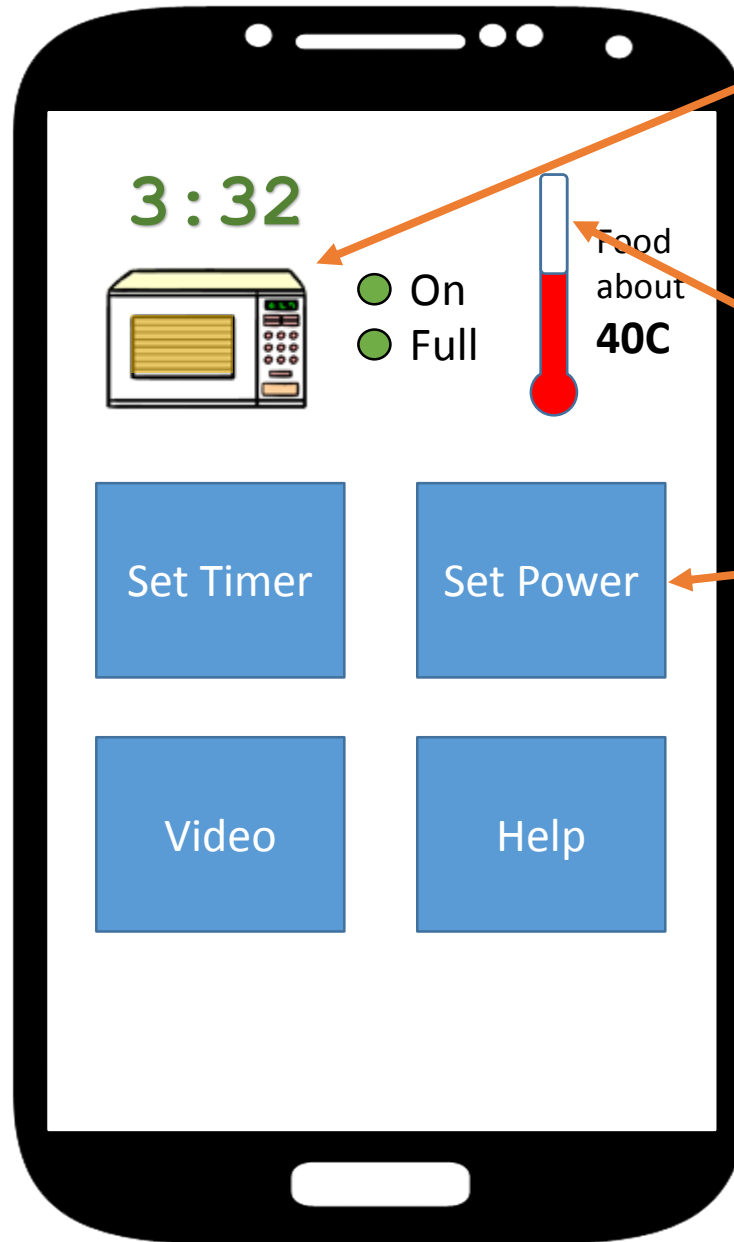
Storyboards are used for:

- Getting feedback from users early in the process
 - In focus groups to see what people's initial reactions are
 - With customers to see if your idea matches theirs
 - With potential users to quickly see if something makes sense
 - With client or boss to clearly articulate an idea
- Helping you think through your design
 - Forces the designer to step through how something will be used
 - It didn't occur to me that the microwave video screen might need a large "stop" button till I drew the Bob storyboard. Now it seems obvious...

Rough
storyboards
let us get high
level
feedback
from users
early in the
process



If I show a potential user a nicer drawn image I will get different feedback



Can't you find a nicer looking graphic?

The white bit doesn't perfectly line up with the red bit.

I don't like this color of blue

Think-pair-share

- Draw a storyboard where Bob wants to use the microwave but Charlie is using it right now.

Design Patterns

A large number of examples drawn from:

<http://ui-patterns.com/>

Design Pattern

- Similar to a recipe for how to handle common user interface design issues
- When facing a design problem it can be useful to look at several patterns and see if they help you solve the problem
- Pros
 - Good way to not reinvent the wheel
 - Learn from others' mistakes
- Cons
 - Only common things have patterns
 - Patterns are not one-size-fits-all, what works in one situation may not work in another

Common elements of design patterns

- Name
- Description
- Problem Statement
- Use When
- Solution
- Rationale
- Examples
- Comments

List of different design patterns for helping the user enter input

Getting input

Getting the user to input data is a task that should be tailored to the context of use.

Forms

- Password Strength Meter
- WYSIWYG
- Input Feedback
- Captcha
- Calendar Picker
- Structured Format
- Inplace Editor
- Fill in the Blanks
- Preview
- Settings
- Keyboard Shortcuts
- Expandable Input
- Undo
- Autosave
- Drag and drop
- Forgiving Format

Explaining the process

- Wizard
- Completeness meter
- Steps Left
- Inline Help Box

Community driven

- Vote To Promote
- Pay To Promote
- Wiki
- Flagging & Reporting
- Rate Content

Structured Format (ui-patterns.com)

Problem summary

The user needs to quickly enter data into the system but the format of the data must adhere to a predefined structure.

Example

The image shows three variations of a flight booking form, illustrating the 'Structured Format' pattern. Each form includes fields for 'Depart' and 'Return' dates, a 'Class' dropdown, a 'Ticket type' dropdown, and passenger counts for 'Adults (12+)', 'Children (2-11)', and 'Infants (0-2)'. The forms are connected by arrows, showing a progression from an empty form to one with a calendar, and finally to one with pre-filled data.

Form 1 (Left): Empty date fields. 'Depart' and 'Return' are labeled 'DD/MM/YY'. 'One way only' and 'My dates are fixed' are checkboxes. 'Class' is set to 'Economy'. 'Ticket type' is set to 'Lowest'. Passenger counts are 1 Adult, 0 Children, 0 Infants.

Form 2 (Middle): A calendar is displayed over the 'Return' date field, showing 'SEPTEMBER 2007'. The date '20' is selected. The 'Depart' field is empty.

Form 3 (Right): The 'Return' date field is pre-filled with '20/09/07'. The 'Depart' field is empty.

Usage

- Use when the more explicit form elements like select boxes, radio buttons, and checkboxes make entering data for everyday tasks a too complicated process
- Use when the time it takes to complete a task proportional exceeds the importance of the goal the user wants to accomplish.
- Use when the input you want to collect is a specific data type. For instance a zip code, a date or time, a phone number.
- Use when the expected user input follows a specific format which can readily be interpreted by a computer program.

Structured Format (ui-patterns.com)

Solution

Represent input fields in a way that clearly guides or limits the user as to what input format to use.

An input field is presented with an accompanying label describing the input that is expected in the field. The label describes a specific structure the user must follow to input a valid value.

In some cases the user is presented with the possibility to use helping mechanisms such as a date selection calendar to fill out the input box in the correct way. When the user has done this multiple times, they slowly learn how the input is formatted, so that they can copy the same format on their own.

Rationale

Set clear expectations by ordering input fields in a Structured Format: clue users as to what kind of input is being requested. By chunking large input fields into smaller bits, data entry errors can be decreased dramatically. It is easier to transcribe or memorize a long number when it is broken up into chunks. Where the Structured Format is well suited for predictable input, the Forgiving Format is well suited for open-ended input.

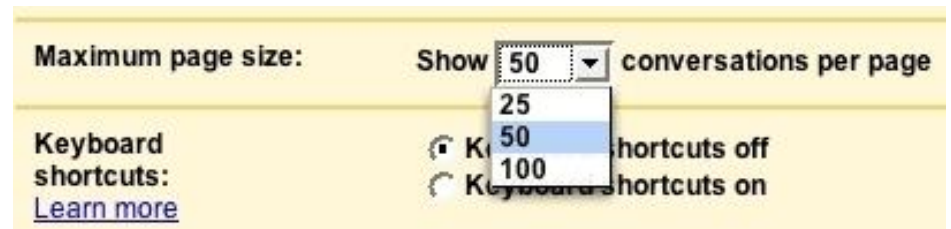
Using a structured format in an input field saves time for the user, when they are required to fill out the same input field repeatedly as a part of a frequent task. The structured data pattern aids the user through streamlined and controlled inputs, which in turn speeds up data capturing tasks and reduces the garbage in, garbage out problem.

Getting input

- Flexible format
- Fill in the blank
- Structured format



A screenshot of a web form titled "Add an event". It features a large, empty text input field. Below the field, the text "6pm Dinner" is followed by a link that says "(Enter dates and times)".



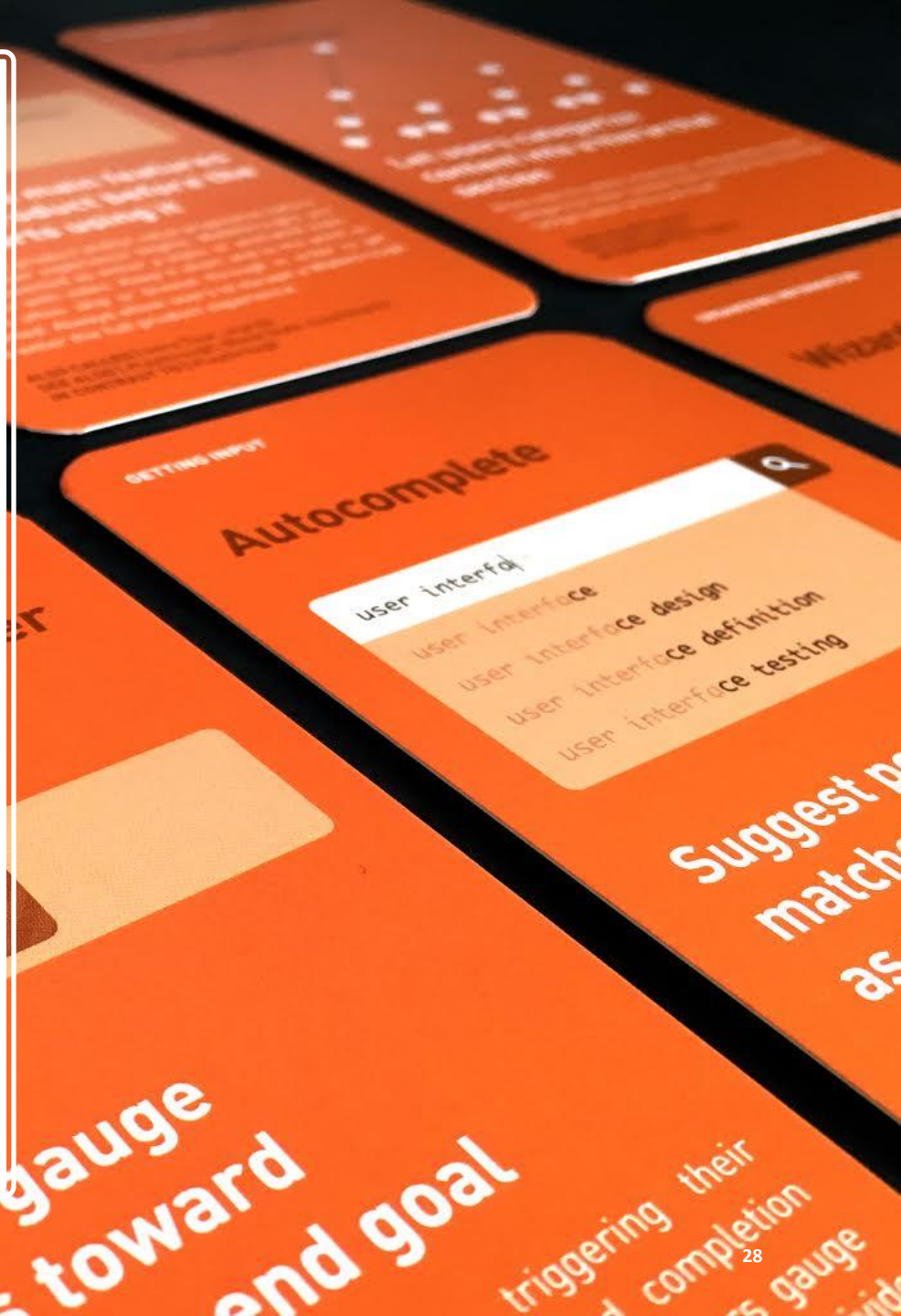
A screenshot of a settings menu. It has a yellow background. The first row contains the text "Maximum page size:" followed by a dropdown menu showing "50" and the text "conversations per page". The second row contains the text "Keyboard shortcuts:" followed by two radio buttons. The first radio button is selected and is labeled "Keyboard shortcuts off". The second radio button is labeled "Keyboard shortcuts on". A link "Learn more" is at the bottom left.



A screenshot of a flight booking form. It has a light blue background. The "Depart" section has a date input field with the placeholder "DD/MM/YY" and a checkbox labeled "One way only". The "Return" section has a date input field with the placeholder "DD/MM/YY" and a checkbox labeled "My dates are fixed". The "Class" section has a dropdown menu showing "Economy" and a link "what's this?". The "Ticket type" section has a link "what's this?" and two radio buttons: "Lowest" (selected) and "Flexible". Below this are three columns: "Adults (12+)", "Children (2-11)", and "Infants (0-2)". Each column has a spinner input field showing the number of tickets: "1" for Adults, "0" for Children, and "0" for Infants.

UI Pattern card deck

- <http://ui-patterns.com/>
- Set of ideation cards used to help designers think through what kind of UI elements might be needed
- Helps designers think about all the options and how they match the needs

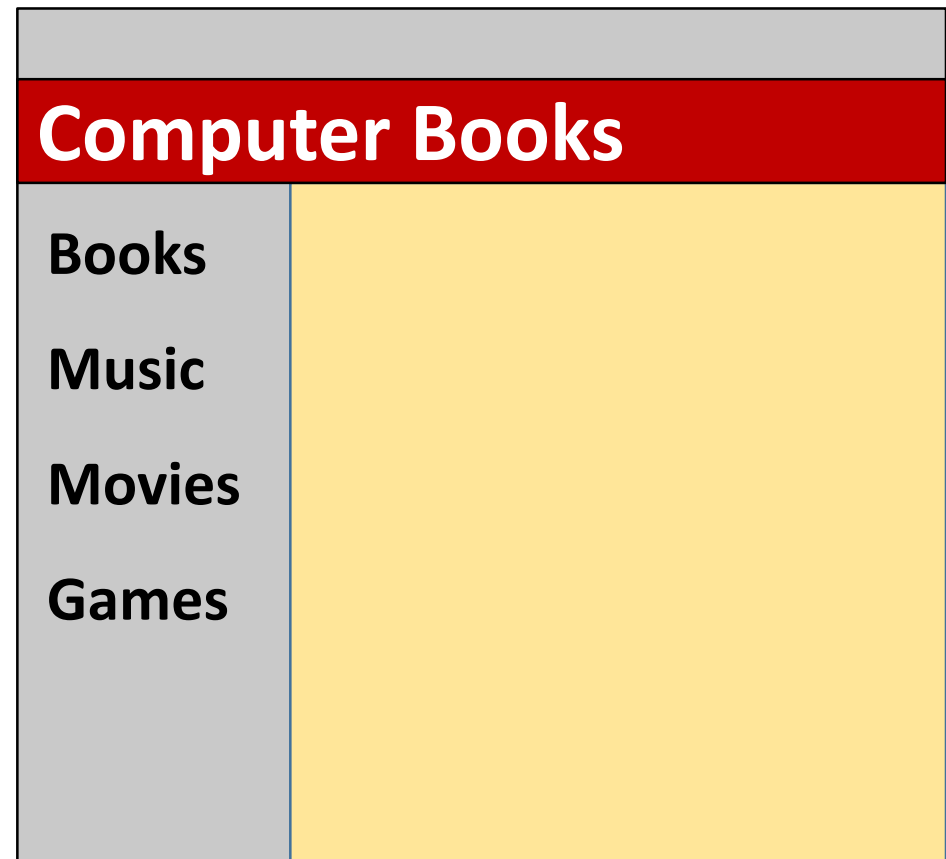
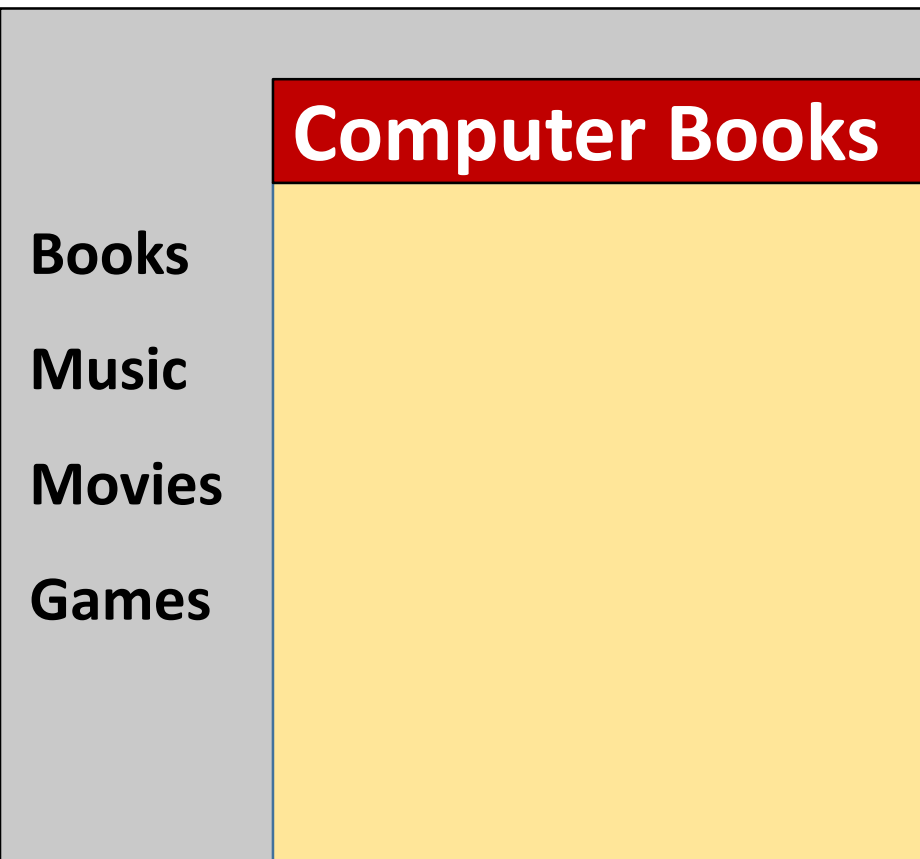


Content layout

Remember those Gestalt principles we went over? Content layout is where they start mattering.

Think-pair-share

Use the gestalt principles to determine which of the two pages is more understandable:



Computer Books

Books

Music

Movies

Games

Computer Books

Books

Music

Movies

Games

Computer Books

Books

Music

Movies

Games

Computer Books

Books

Music

Movies

Games

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看！习近平这么说明《准则》《条例》

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中石油原总经理廖永远受审 涉案金额3442万元

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虹桥机场飞机险相撞事件当事机长获300万奖励

谢亚龙狱中服刑获6次表扬 法院再对其减刑1年

人大委员：红会不适合开展遗体 and 人体器官捐献

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干洗店女老板诈骗1.7亿 车内堆黄金诱人上钩

北京法院：被性侵未成年女性低龄化 集中于9-14岁

NBA-韦少35分雷霆险胜快船 哈登30+15火箭大胜



4岁女儿生命将尽 父亲分享与病魔抗争全程

今日话题

总是拉偏架？美国媒体为什么要偏帮希拉里

7省规定“开除超生者”：废止恶法别搞差异化 往期

“被罚看远光灯”，恐怕经不起法治丈量 评论

万历皇帝30年不上朝并非怠政 而是患有足疾 历史

全球10大最贵车牌号 只有1个在中国 Miss Money

金庸到底有没有单恋夏梦？ 思想

没有勇气否定自己就没有机会成就更好的自己 入流

今日热播

影视剧

综艺



倒挂滑降！杨冪被吓哭了



华晨宇被神曲吓瘫了！

饭局的诱惑 | 阿娇走心谈感情 容祖儿称爱谢霆锋

喜剧总动员 | 宋小宝约会袁姗姗 郑恺误入传销窝

跨界喜剧王 | 胡彦斌改编神曲 李云迪拆散情侣

韩综 | Radio star 无限挑战 我们结婚了4

热播综艺 | 如果爱3 Hello! 女神 叮咯咙咚呛2

缘来非诚勿扰 隐藏的歌手2 我的新衣

今日图话



QQ 邮箱 会员 电脑管家 软件

微信 空间 课堂 好莱坞 腾讯云

快报 新闻APP 自选股 体育APP

视频 手机管家 浏览器 应用宝

LOL CF DNF 征途 天刀

爱玩 逆战 御龙手游 火影OL 剑侠

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المضوية



آخر تحديث: 2016/11/3 الساعة 13:11 (مكة المكرمة)



الدوحة - قطر 23° 32°



الرئيسية الأخبار المعرفة البرامج الوسائط الموسوعة تعلم العربية رياضة مدونات المزيد

المواضيع المميزة الانتخابات الأميركية الحرب في سوريا الأزمة في اليمن الصراع في العراق



خبر عاجل : مراسل الجزيرة: الرئيس اللبناني يكلف رئيس تيار المستقبل سعد الحريري بتشكيل الحكومة

أحدث الأخبار البرقيات

تركيا تلوح بإنهاء الاتفاق
مع أوروبا بشأن اللاجئين

قبل 9 دقائق



التكنولوجيا الرقمية تعيد
الحياة للصور التذكارية
القديمة

قبل 16 دقيقة



معاريف: تمييز عنصري
إسرائيلي ضد العرب
والإثيوبيين

قبل 16 دقيقة



بيان البرادعي المتبرئ من
الانقلاب على مرسي

قبل 20 دقيقة



الاحتلال يعتقل عائلة



عربي

البغدادي يحرض مقاتليه
على مهاجمة دول
المنطقة

دعا أبو بكر البغدادي زعيم تنظيم الدولة
مقاتلي التنظيم لمواجهة القوات المهاجمة
للموصل، وإلى عدم الانسحاب من المعركة،
وحدث البغدادي مقاتليه على مهاجمة تركيا
والسعودية، داعيا أهل السنة لدعم التنظيم.

قبل 4 ساعات



البغدادي
ومعركة الموصل

أبو بكر البغدادي
زعيم تنظيم الدولة

تسجيل صوتي منسوب للبغدادي

تغطيات إخبارية

معركة الموصل... مآلات واحتمالات



تغطيات إخبارية

الرئيس الأميركي الـ45.. من يكون؟

الرئيس الأميركي الـ45.. من يكون؟



Questions?