

# **Princípios de Usabilidade (continuação)**

**Interface Pessoa-Máquina - 25/26 - LEI / UM**

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# Exemplo

Universidade de Múltiplas Faculdades

evotUM

OS MEUS PROCESSOS ELEITORAIS

DADOS PESSOAIS

MENSAGENS (8)

HISTÓRICO

Os meus processos eleitorais > Processo de Eleição para o Conselho Geral ... > Eleição para os Representantes dos Profess... > Consulta das referências de voto

CONSULTA DAS REFERÊNCIAS DE VOTO

Insira a sua referência de voto

13d4d4b87661c8e7f2fb3d74aced3f93a8ee63e4fb3236b6b96f4021e48a4e76

VALIDAR

Lista de referências de voto

1876d1j765asd098lk143kg5k4a93b5b94537c9f4e2s6ado237bn1d9mn6sl879

1976d1j76ks823bnjg5k4au93b5b94537c9f4e2s6ado237bn1d9mn6sl879sd45

1243d1j76ks823bnjg5k4au93b5b94537c9f4e2s6ado237bn1d9mn6sl890sd28

1289d1j76ks823bnkg5k4au93b5b94423c9f4e2s6ado237bn1d9kh6sk890re45

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CONSULTA DAS REFERÊNCIAS DE VOTO

Insira a sua referência de voto e valide se o seu voto foi contabilizado.

13d4d4b87661c8e7f2fb3d74aced3f93a8ee63e4fb3236b6b96f4021e48a4e76

VALIDAR

O seu voto foi contabilizado com sucesso!

Lista de referências de voto

13d4d4b87661c8e7f2fb3d74aced3f93a8ee63e4fb3236b6b96f4021e48a4e76

O seu voto foi contabilizado com sucesso!

# Exemplo

<b>Learnability</b>	<b>Flexibility</b>	<b>Robustness</b>
Predictability	Dialogue initiative	Observability
Synthesizability	Task migratability	Recoverability
Familiarity	Substitutivity	Responsiveness
Generalizability	Customizability	Task conformance
Consistency	Multithreading	

# Exemplo (Learnability)

- **Predictability** (capacidade de determinar o efeito de ações no sistema)
  - Validação podia ser live as you type
- **Synthesizability** (capacidade de determinar o efeito de ações passadas no estado atual)
  - + Efeito da validação é óbvio
  - + Aparente independência de validações anteriores
- **Familiarity** (utilidade de conhecimento anterior sobre o mundo ou outros sistemas)
  - O que é uma referência de voto?
  - Nenhuma metáfora de eleições

# Exemplo

Learnability	Flexibility	Robustness
Predictability	Dialogue initiative	Observability
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Consistency	Multithreading	

# Exemplo (Flexibility)

- **Dialogue initiative** (maximizar o sentimento de controle do utilizador)
  - + Iniciativa do lado do utilizador, mas adequado
  - Poderia haver mais apoio na pesquisa de referências
- **Substitutivity** (suportar valores equivalentes como permutáveis)
  - Não existem outras formas de referenciar votos
  - Por exemplo, suportar referências parciais à lá Git?
- **Multithreading** (suportar interação com o utilizador para várias tarefas em simultâneo)
  - Apenas processa uma referência de cada vez

# Exemplo

Learnability	Flexibility	Robustness
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Generalizability	Customizability	Task conformance
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# Exemplo (Robustness)

- **Observability** (capacidade de compreender o estado interno do sistema)
  - + Affordance simples, mas óbvio qual o comportamento da operação Validar
  - Lista de referências atualizada a cada validação? Porquê múltiplas referências? Porque não manter histórico completo? Mensagem de validação efémera?
- **Responsiveness** (qual a taxa de comunicação percepcionada com o sistema)
  - + Feedback adequado e atempado
  - Podia haver atualização da lista para referências parciais, live as you type
- **Task conformance** (quanto o sistema suporta as tarefas dos utilizadores)
  - Nada óbvio como obter uma referência, fora da UI?
  - Lista de referências depois de validação parece inútil

# Exemplo

Learnability	Flexibility	Robustness
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# Desenhar para usabilidade máxima

## Guidelines

- generic design rules
- lower authority
- more general application

## Patterns

- capture common designs
- reuse design knowledge
- more concrete application

## Principles

- general understanding
- low authority
- high generality

## Usabilidade Máxima

## Standards

- specific design rules
- high authority
- limited application

Genérico

Concreto

# Guidelines de usabilidade

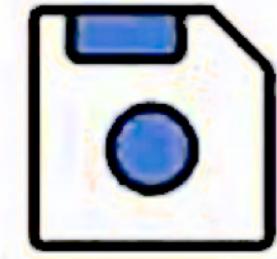
- Mais operacionais, derivadas dos princípios
- Muitas compilações de guidelines (mesmas ideias, organização diferente)
  - Norman's principles (4)
  - Shneiderman's Golden Rules (8)
  - Tog's First Principles (19)
  - Tognazzini's principles (16)
  - **Nielsen's Heuristics (10)**
- 💡 Regras de design de “pincel largo”
- ❗ Nem sempre úteis para todos os contextos (exige prática)

# Heurísticas de usabilidade

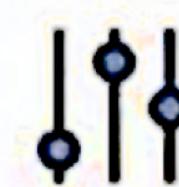
1. Visibility of System Status



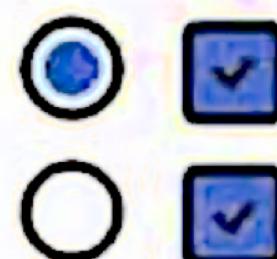
2. Match between System and Real World



3. User Control and Freedom



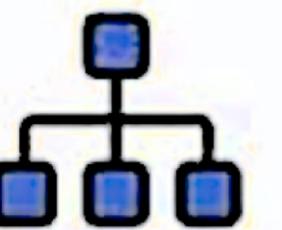
4. Consistency and Standards



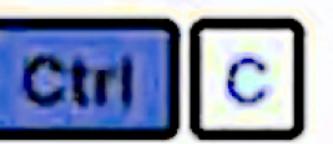
5. Error Prevention



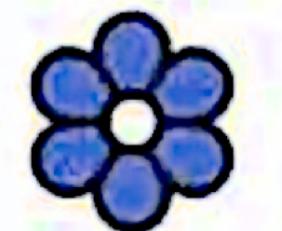
6. Recognition rather than Recall



7. Flexibility and Efficiency of Use



8. Aesthetic and Minimalist Design



9. Help Users Recognize, Diagnose, and Recover from Errors

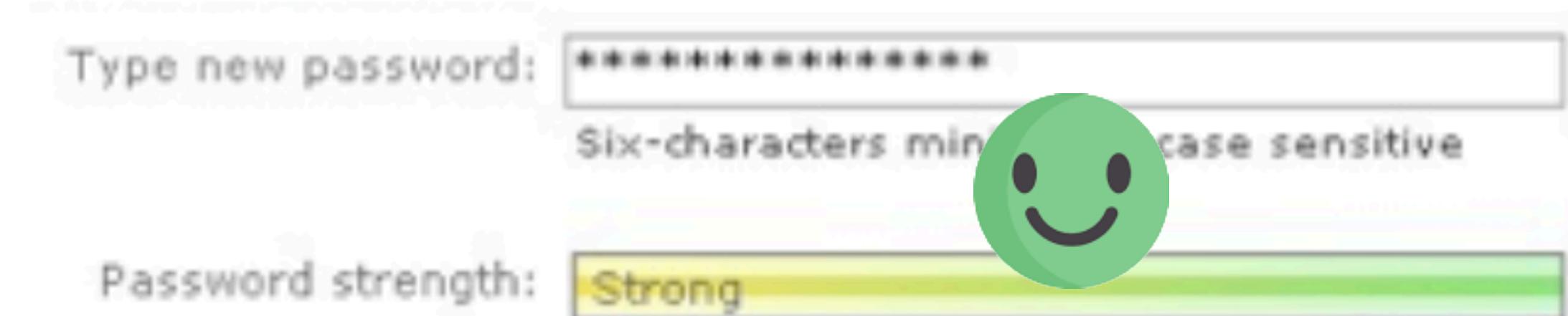
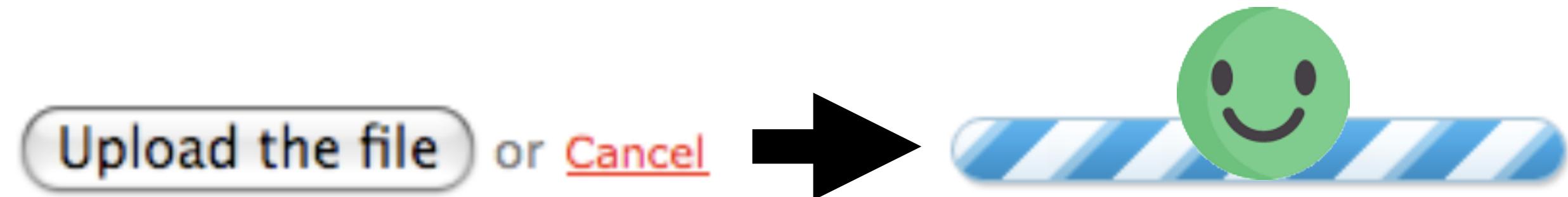
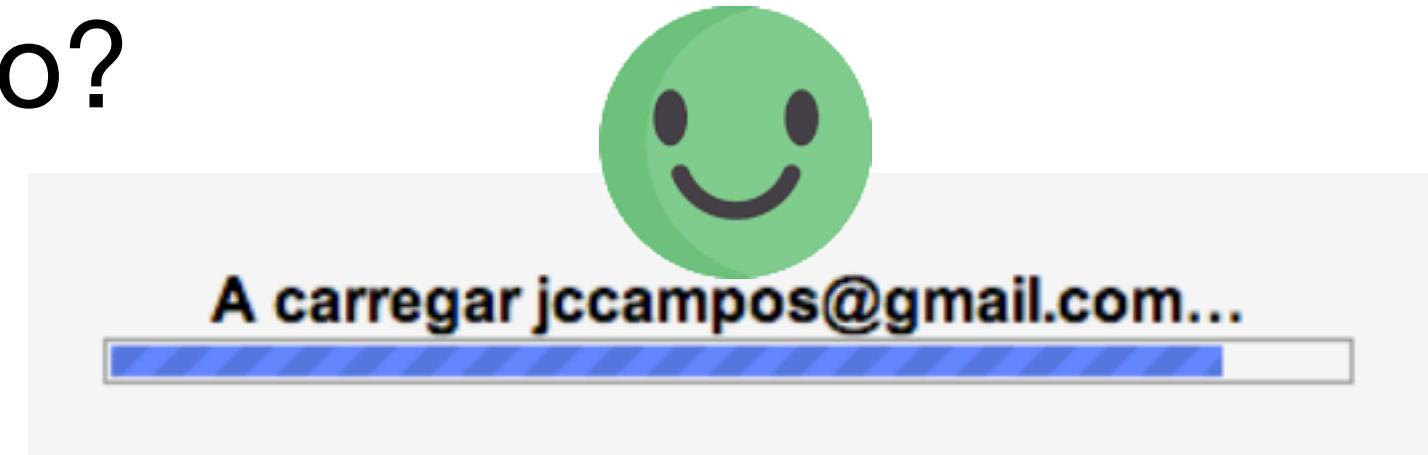


10. Help and Documentation



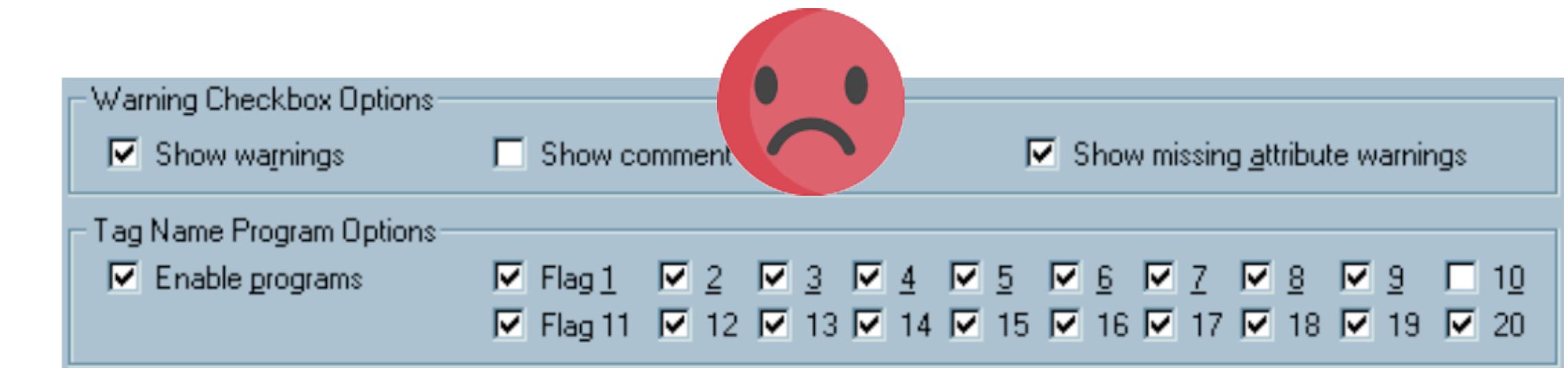
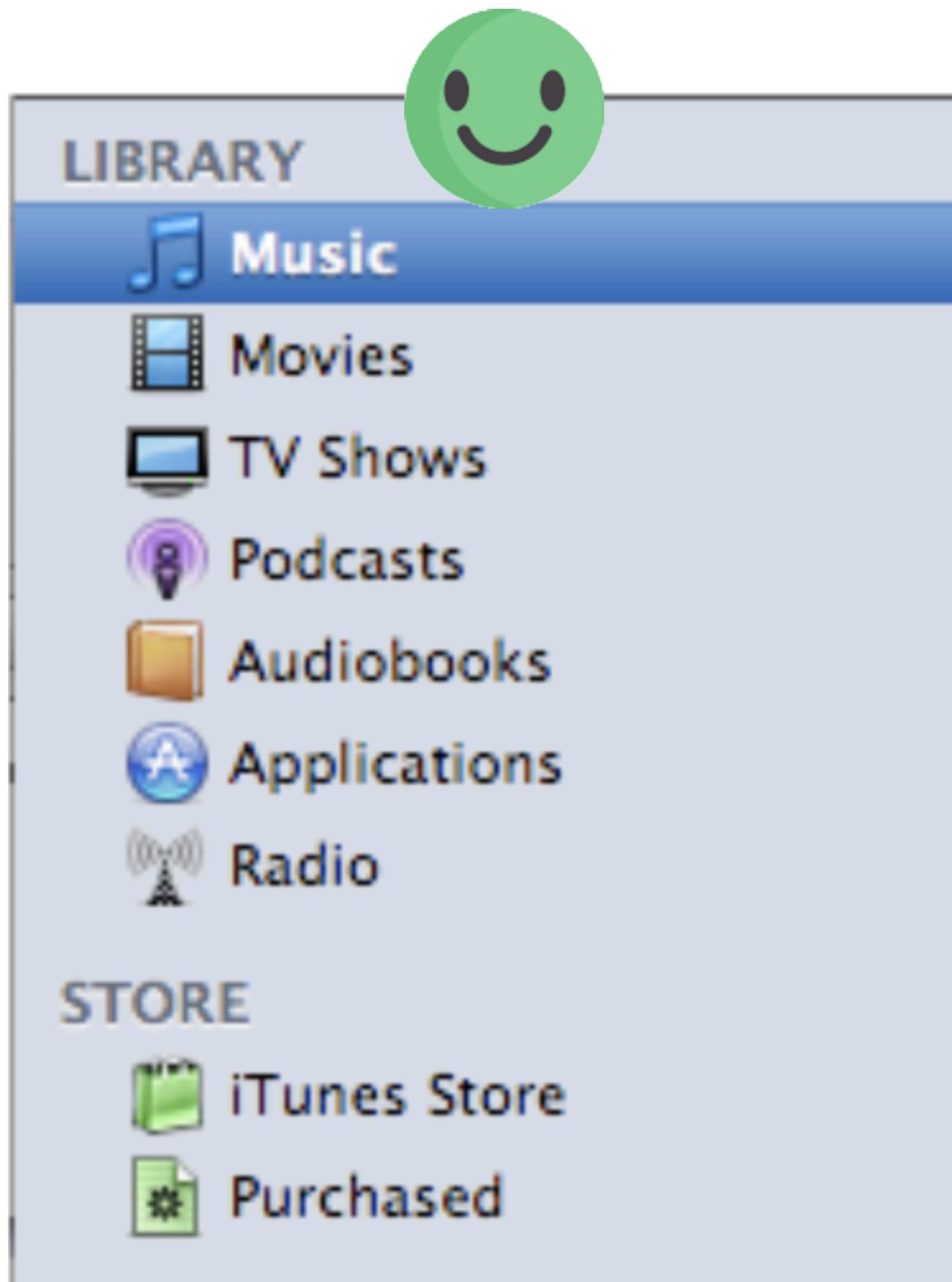
# Heurística #1: Visibility of system status

- O sistema mantém o utilizador informado sobre o seu estado?
  - E.g., barra de progresso
  - E.g., mudança de widgets
  - E.g., mensagem de feedback
  - E.g., Atualização contínua

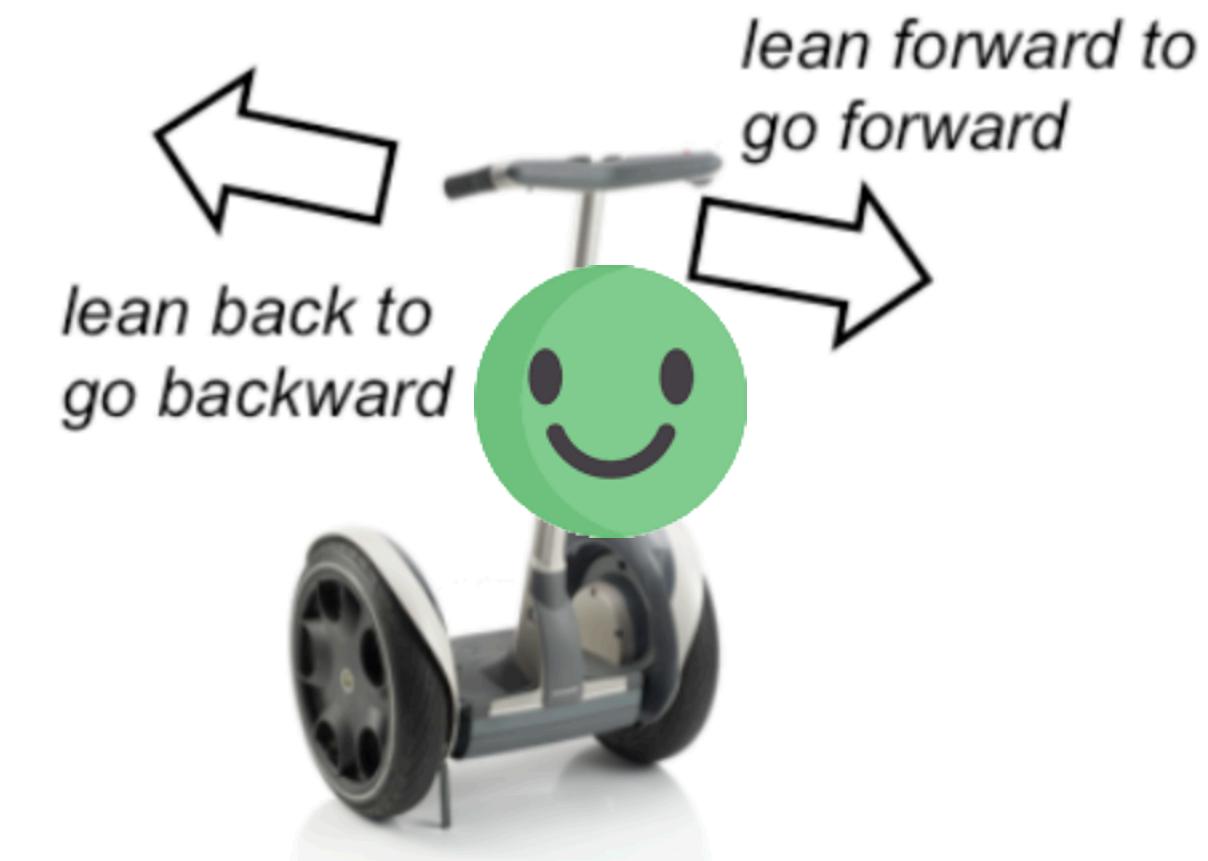


# Heurística #2: Match system and real world

- Falar a linguagem do utilizador
  - E.g. utilizar metáforas
  - E.g., evitar jargão técnico

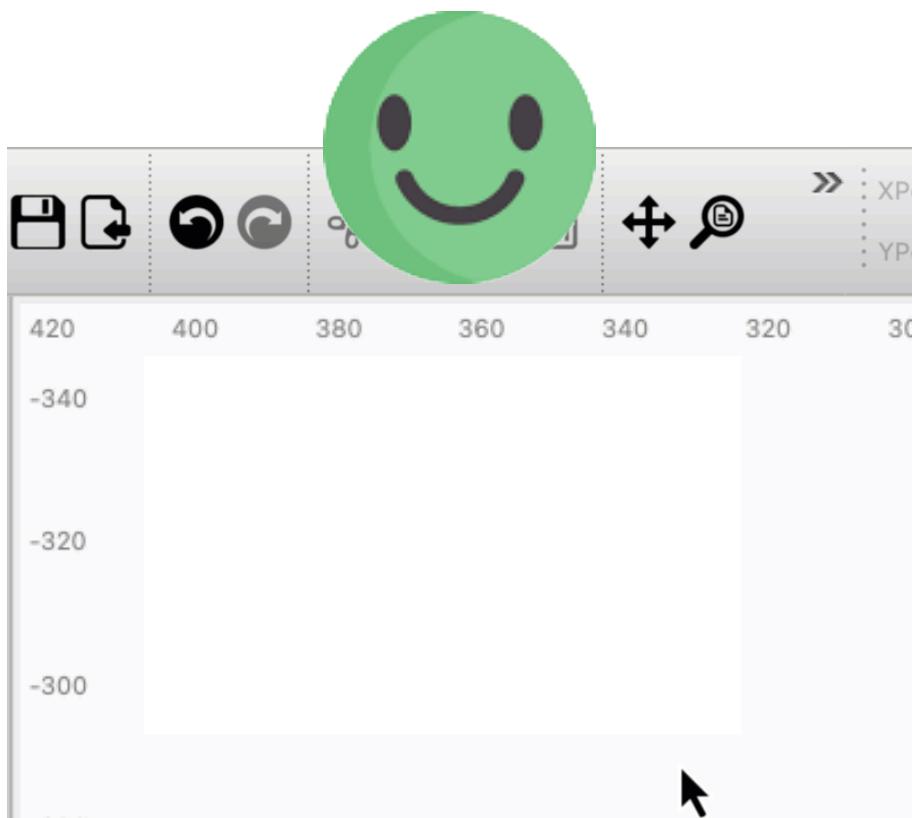


- E.g., mapeamento natural entre função e interface

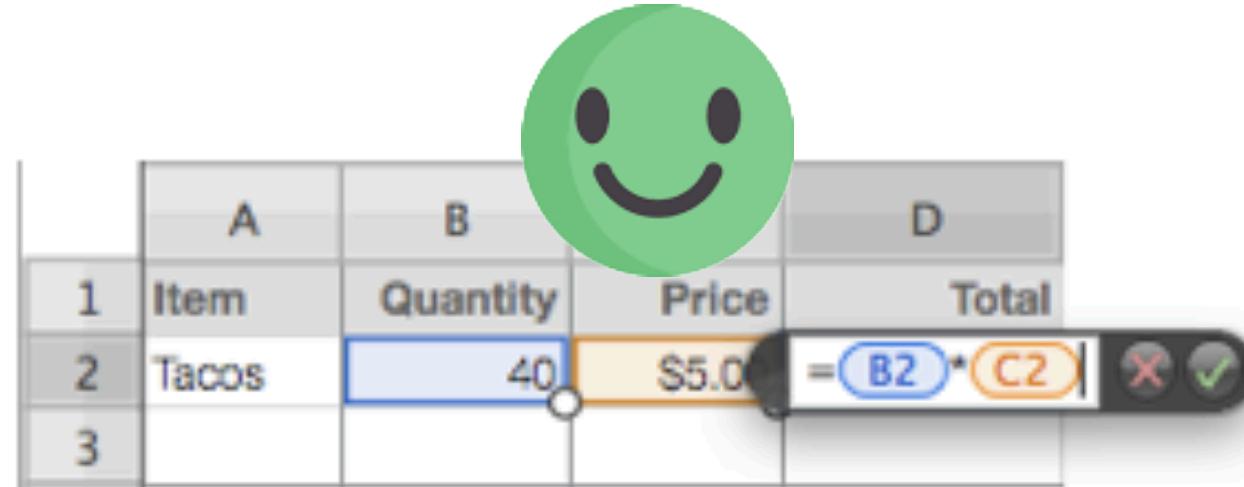


# Heurística #3: User control and freedom

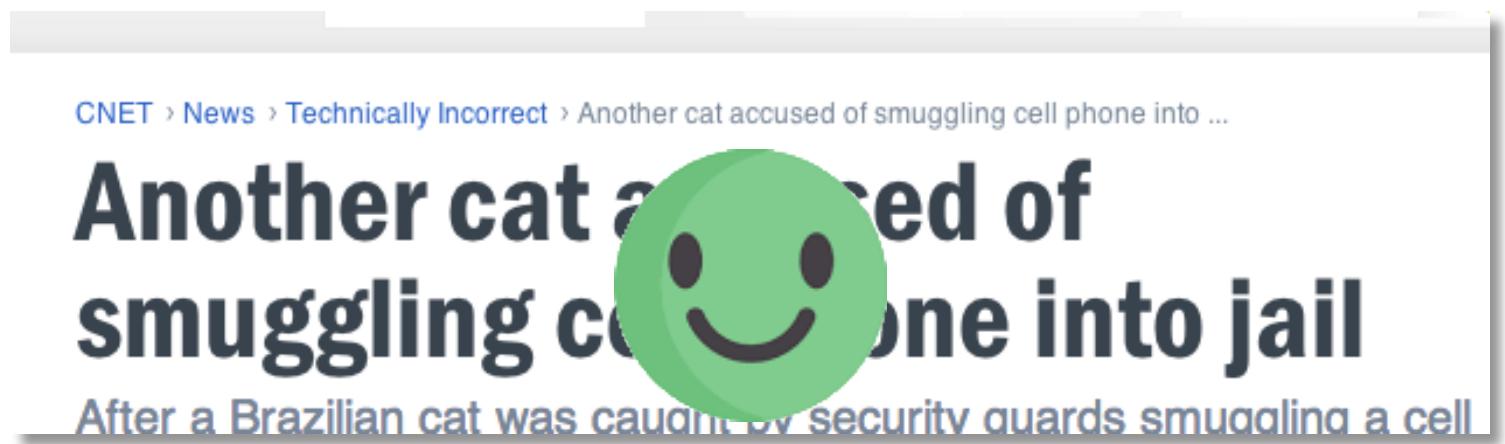
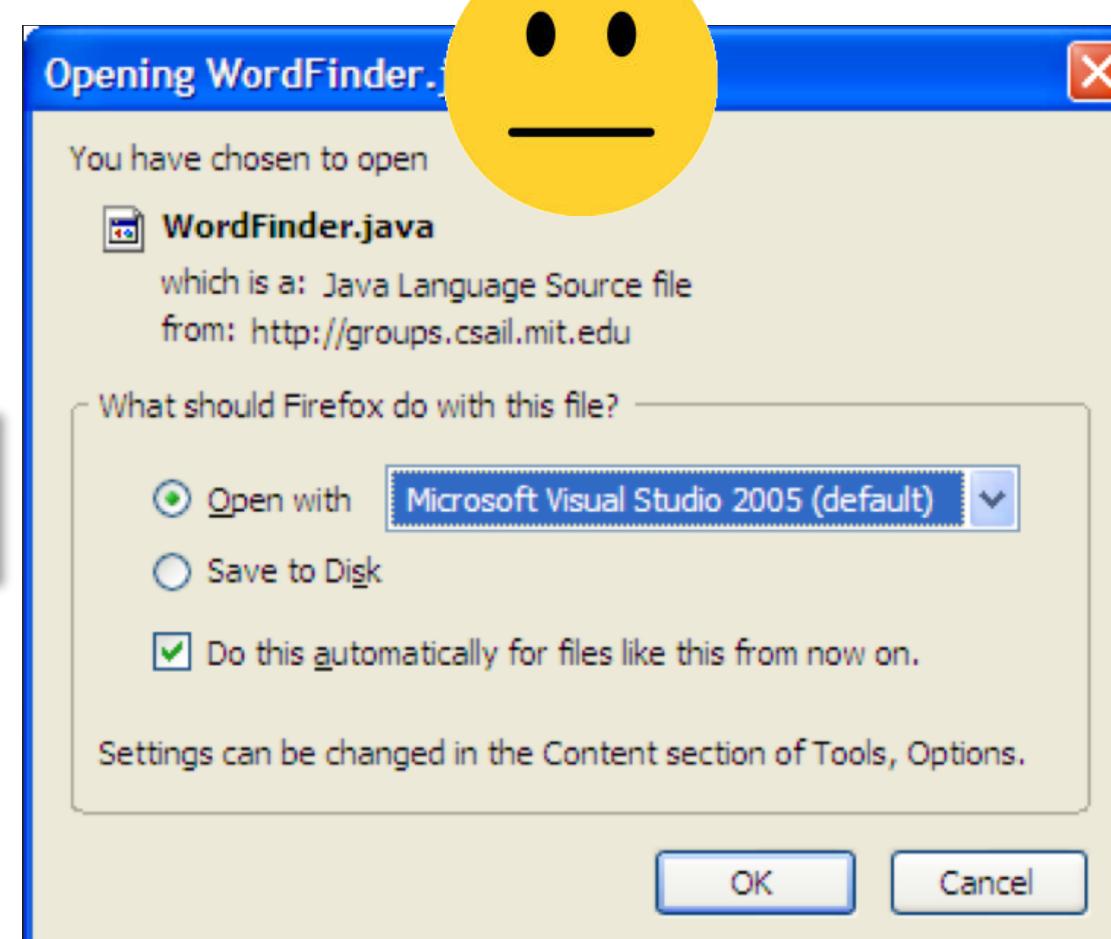
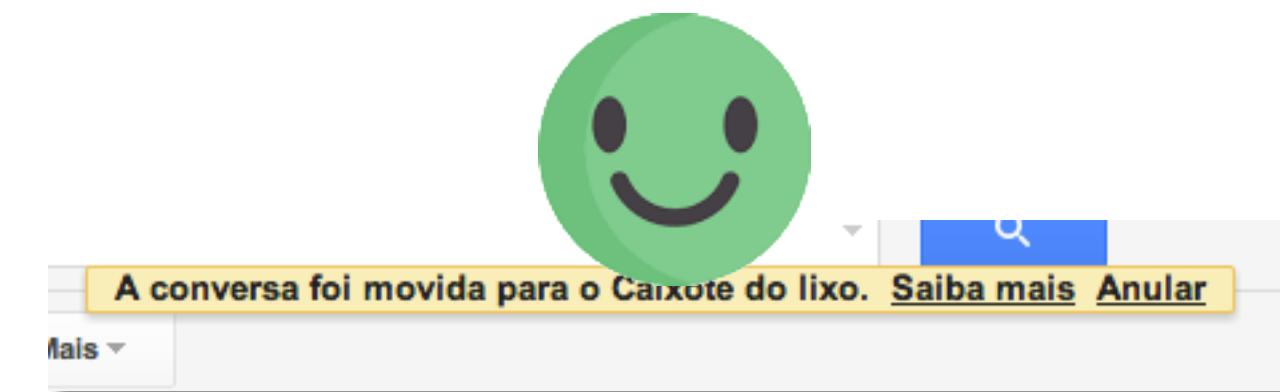
- Ajudar o utilizador a navegar pela interface
  - E.g., undo/redo
  - E.g., o utilizador sabe onde está?



- E.g., cancelar operações

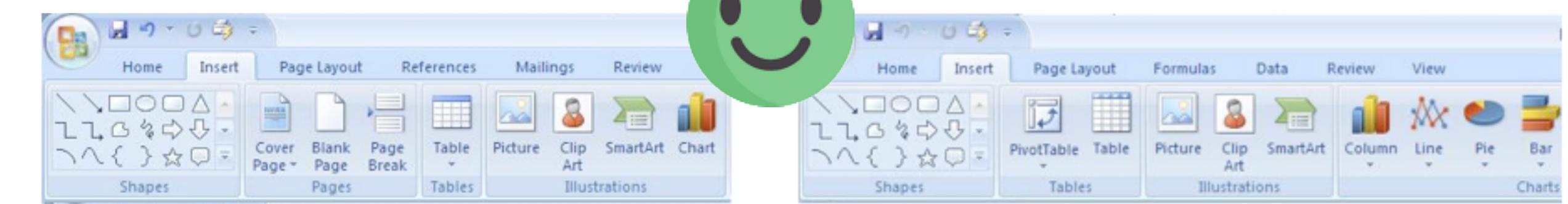


- E.g., recuperar de erros (inclusive do utilizador)

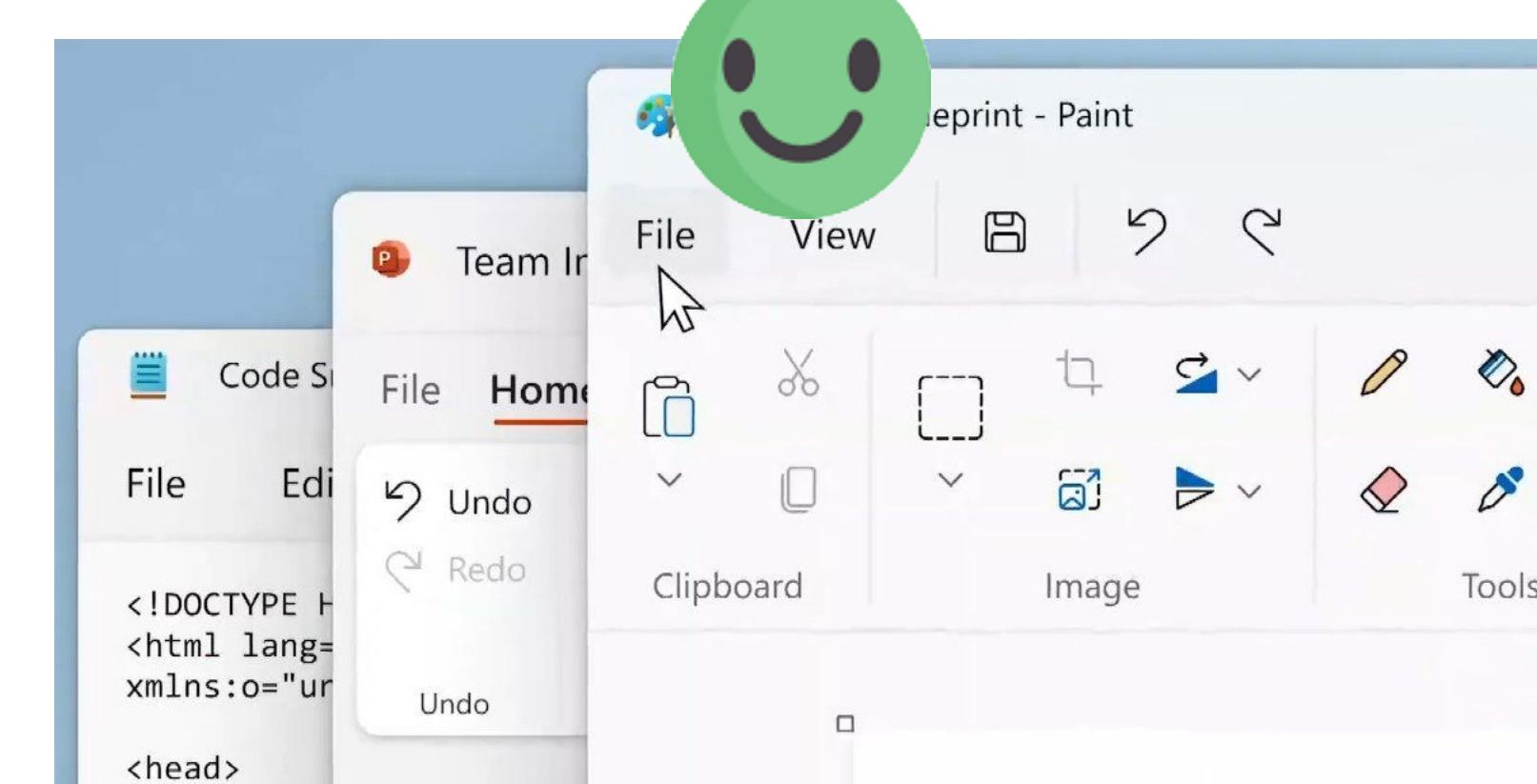


# Heurística #4: Consistency and Standards

- São seguidas convenções (informais) e normas (formais)?
  - E.g., nomes / formatos comuns
  - E.g., entre aplicações (Word + Excel)

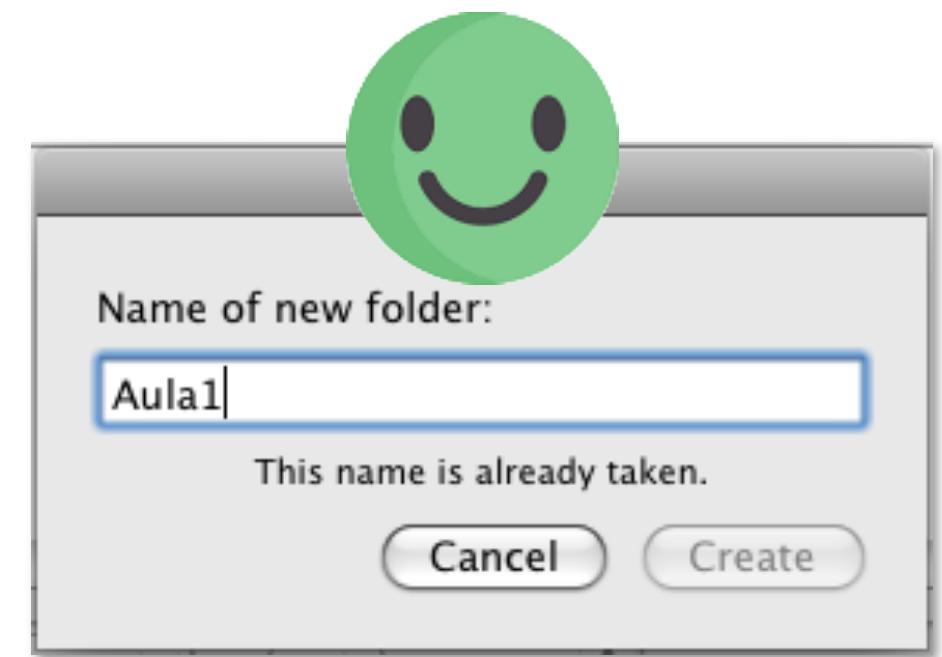
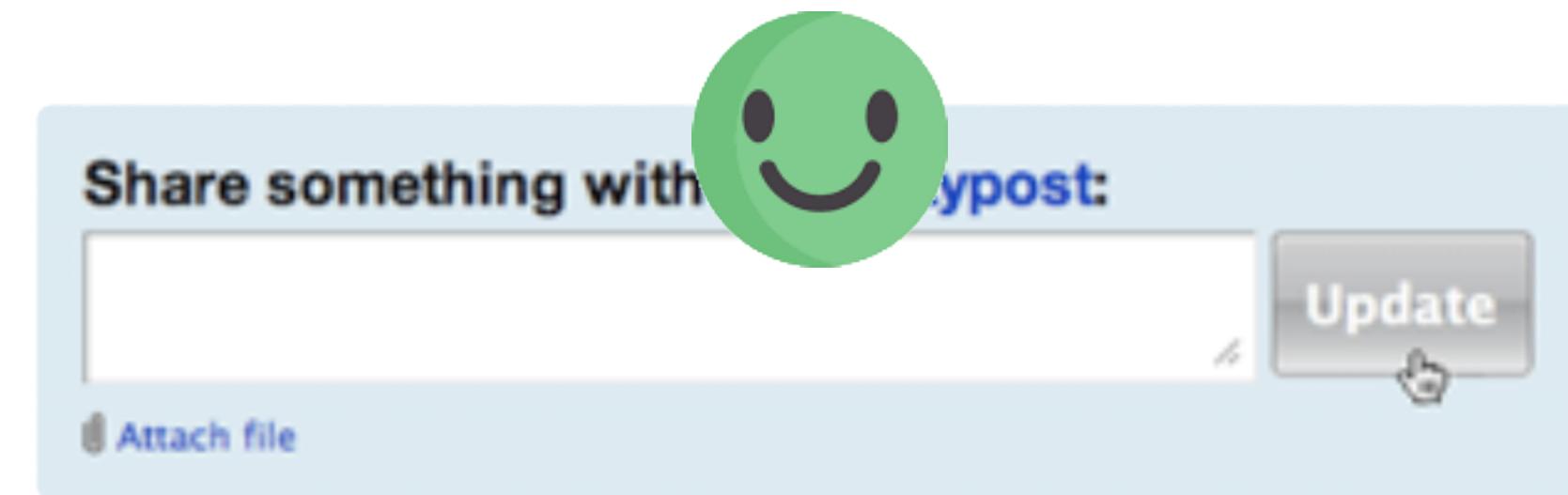


- E.g., Microsoft Fluent Design System

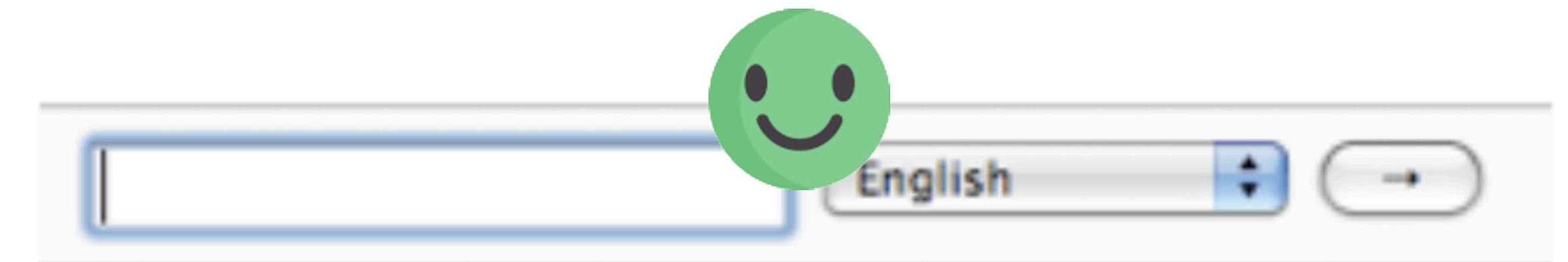
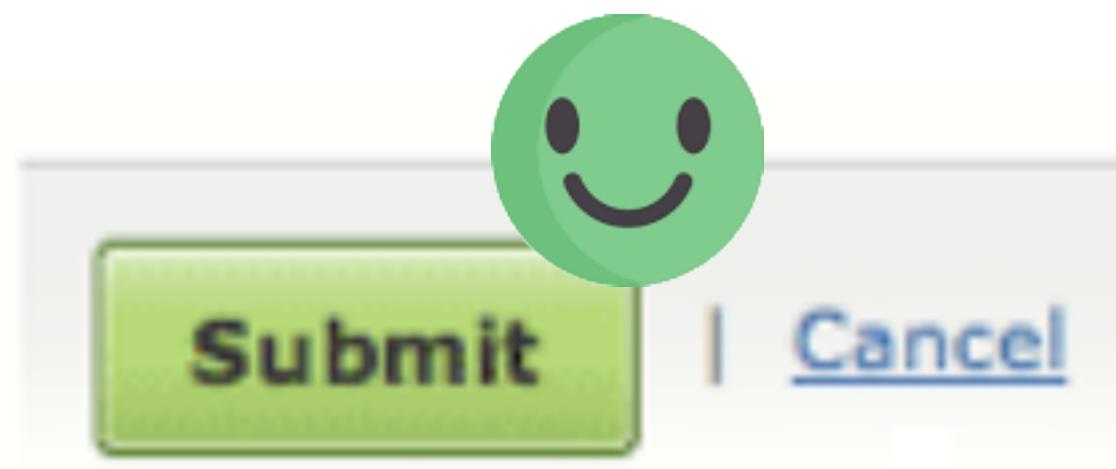


# Heurística #5: Error prevention

- A interface impede erros evitáveis?
  - E.g., fornecer informação e desativar botões



- E.g., ação primária dominante
  - E.g., foco automático



# Heurística #5: Error prevention

Adopting a dog this weekend :)

Inbox x

Anissa Lee 8:10 AM (19 minutes ago) I'm super pumped -- can't wait!

Lindsay Carter 8:24 AM (4 minutes ago) Cats are way better, you should adopt a cat.

Tim Greer 8:26 AM (3 minutes ago) to Lindsay, me, Anissa Cats are cool, but you can't take them for a run. #DogsRule

Click here to Reply, Reply to all, or Forward

Program Policies

Powered by Google™



Funeral arrangements for Katie

Jonathan Anderson <j.anderson@walkerfuneral.com> 9:01 PM (2 minutes ago) to Melanie



Melanie,  
We're so very sorry to hear of the tragic loss of your daughter.  
Your brother-in-law Louis suggested we reach out to you to begin funeral arrangements. Please let us know how we can be of assistance to you in this difficult time.

Sincerely,  
Jonathan Anderson  
Walker Funeral Home



The Keyword

Latest Stories Product Updates Company News

We realize many of you use Gmail for very important messages, and we are sorry if Mic Drop was in any way harmful to you. Note that if you're a Google Apps business, education or government user this feature was never turned on.

At Google we have a culture of sharing what we learned when things go wrong, and we want to share these learnings with you:

1. We should have asked you before turning on the feature, and it should have included a confirmation before sending.
2. We didn't anticipate accidental clicks: "Send + Mic Drop" was too close to other send buttons ("Send" as well as "Send & Archive"), which caused confusion.



Gmail Help

Describe your issue

Help Center Community

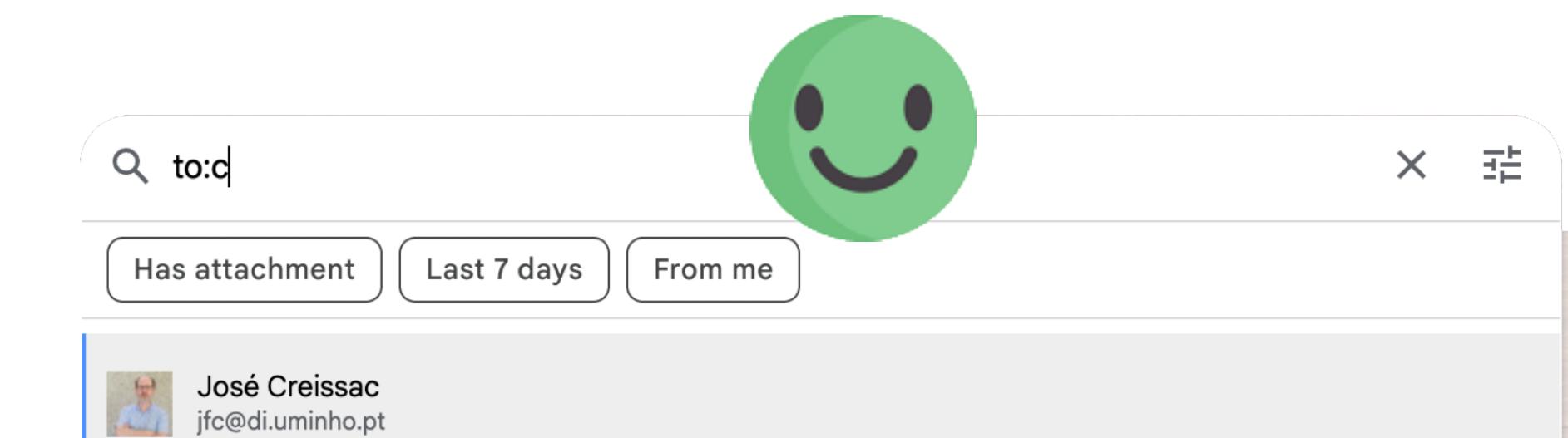
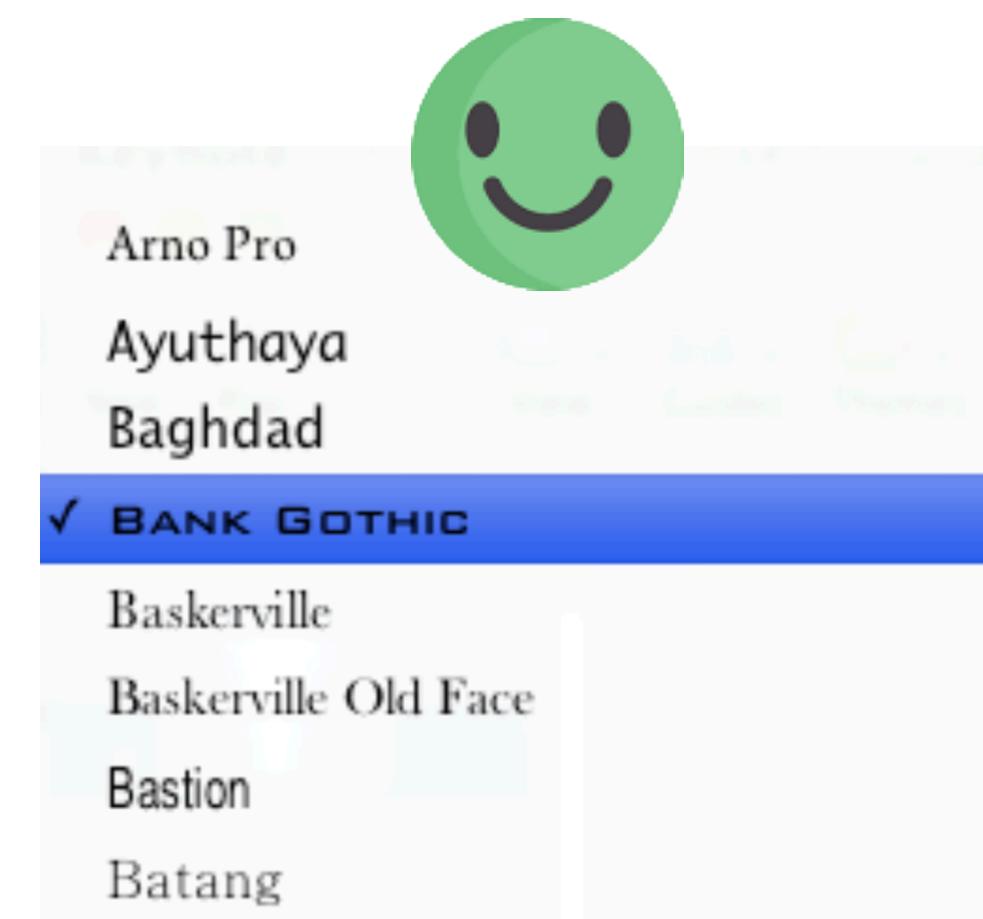
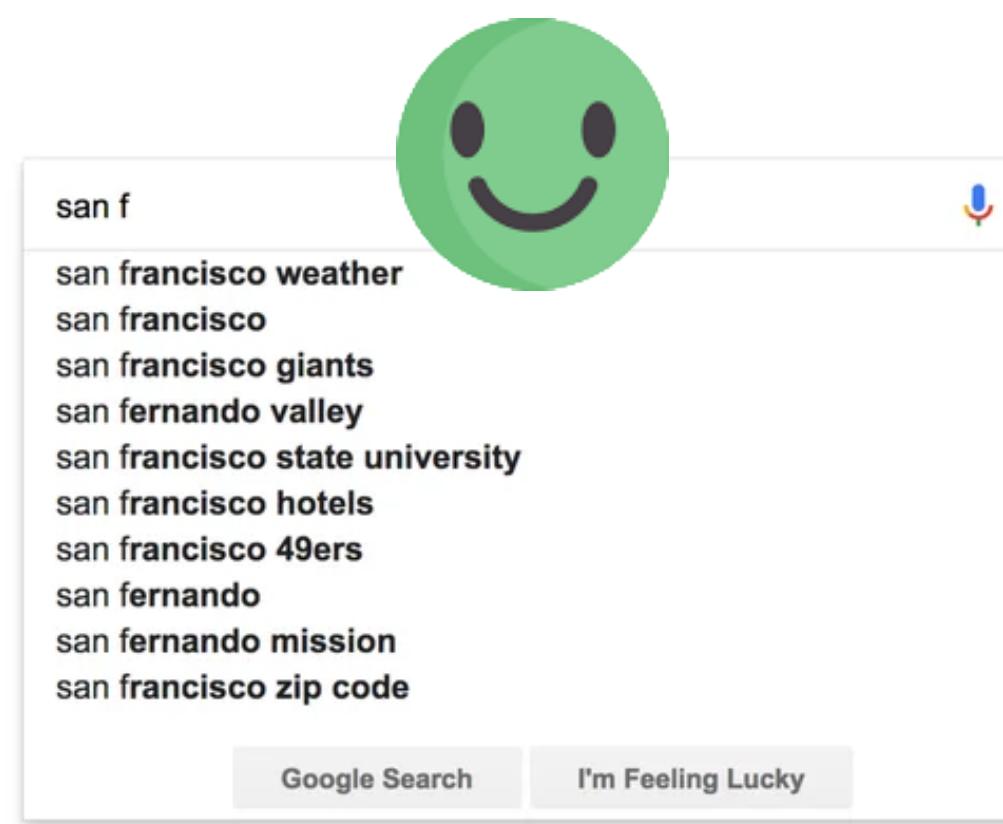
Original Poster Allan Pashby 4/1/16

Will Google give me a job? 

Thanks to Mic Drop I just lost my job. I am a writer and had a deadline to meet. I sent my articles to my boss and never heard back from her. I inadvertently sent the email using the "Mic Drop" send button. There were corrections that needed to be made on my articles and I never received her replies. My boss took offense to the Mic Drop animation and assumed that I didn't reply to her because I thought her input was petty (hence the Mic Drop). I just woke up to a very angry voicemail from her which is how I found out about this "hilarious" prank.

# Heurística #6: Recognition over recall

- O utilizador não deve ter que se lembrar de informação (inclusive de outras partes do interface)
  - 💡 Recognition (relembrar com dicas visuais - “knowledge in the world”)
  - 💡 Recall (relembrar sem ajuda - “knowledge in the head”)
- E.g., autocomplete, dropdown menus



# Heurística #7: Flexibility and efficiency of use

- Permitir a utilizadores experientes acelerar a interacção
  - E.g., “hotkey shortcuts”
  - E.g., “previews”



Common Shortcuts	
Add Action	Return
New Window	⌘N
Synchronize with Server	⌃⌘S
Clean Up	⌘K
Planning Mode	⌘1
Context Mode	⌘2
Inbox	⌃⌘1
Quick Entry	⌃Space
Quick Entry's shortcut can be customized in Preferences	



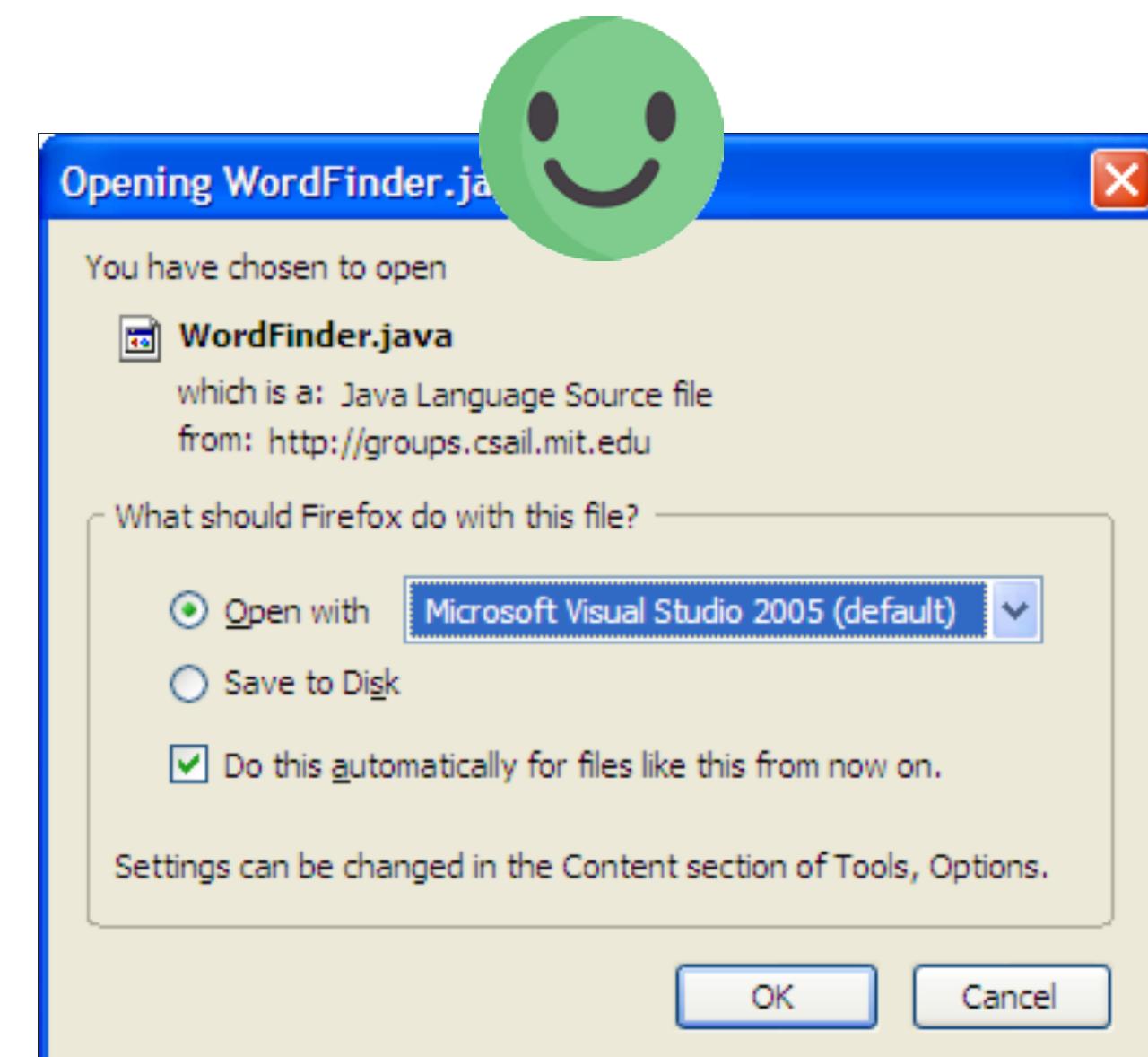
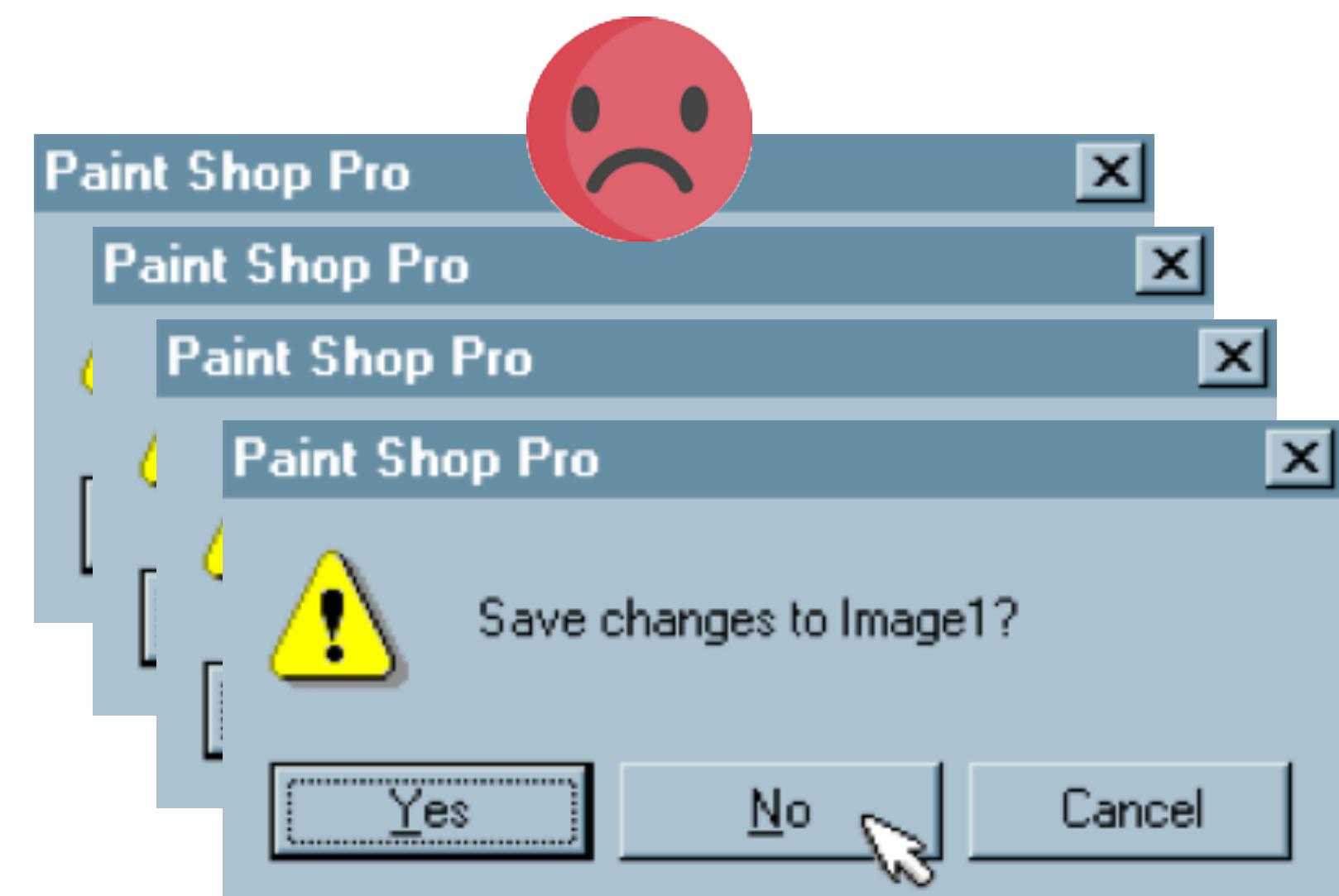
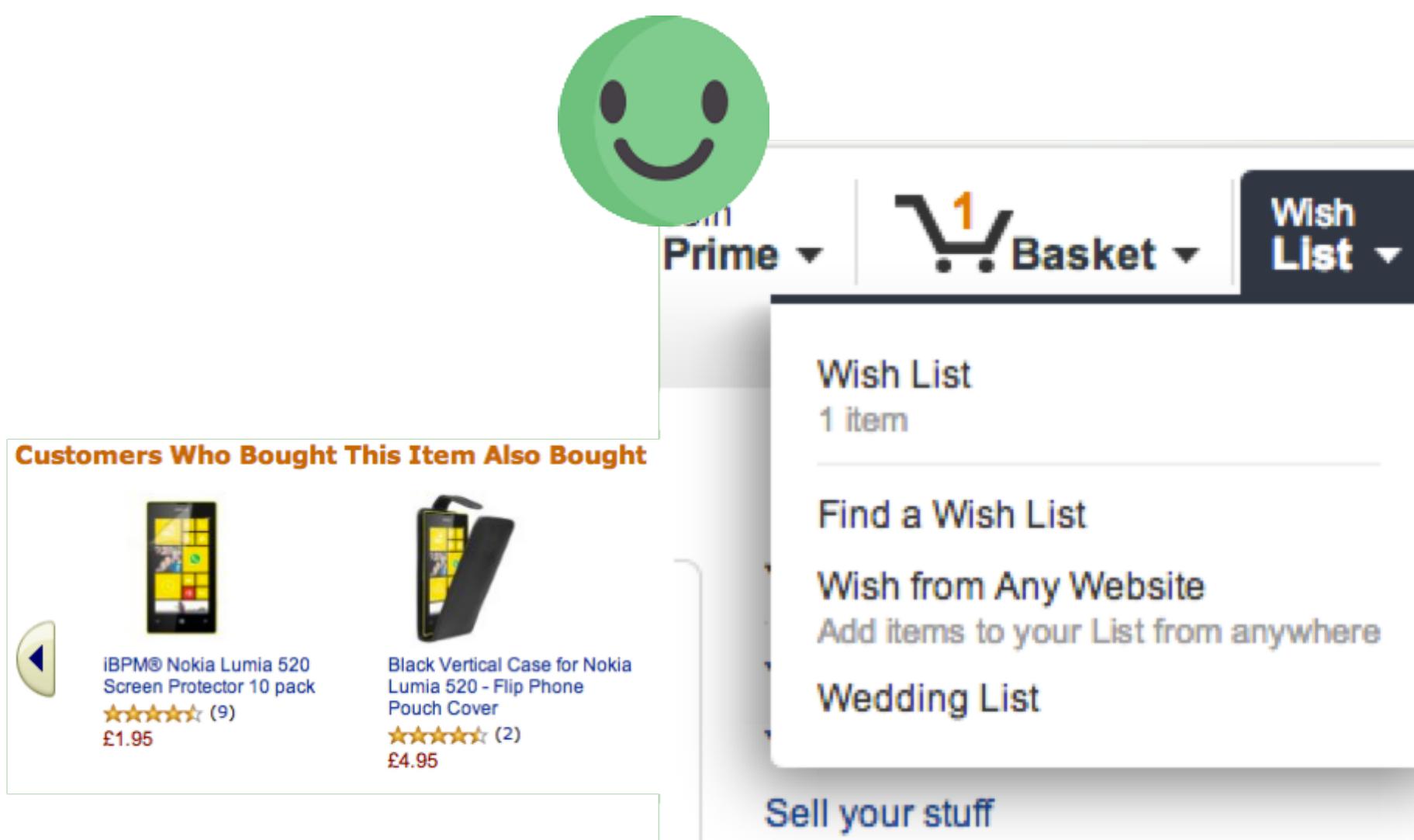
Styles	
Basic	
Basic (No Grid)	
Gray	
Gray Headers	
Gray Fill	
Beige	
Ledger	
Blue	
Blue Headers	
Blue Fill	
Gravity	
sum	23.2264292787289
avg	1.78664840605607
min	0.00086222222222...
max	10
count	13



A	B	C
Mean	1.81	1.85
Median	1.81	1.85
Standard deviation	0.03	0.04
Variance	0.00086	0.00138
Alpha	0.05	0.05
T-value	2.26	2.26
Confidence interval	0.01820	0.02304
Upper limit	1.82620	1.87704
Lower limit	1.78980	1.83096
T-interval	0.02100	0.02659
Upper limit	1.82900	1.88059
Lower limit	1.78700	1.82741

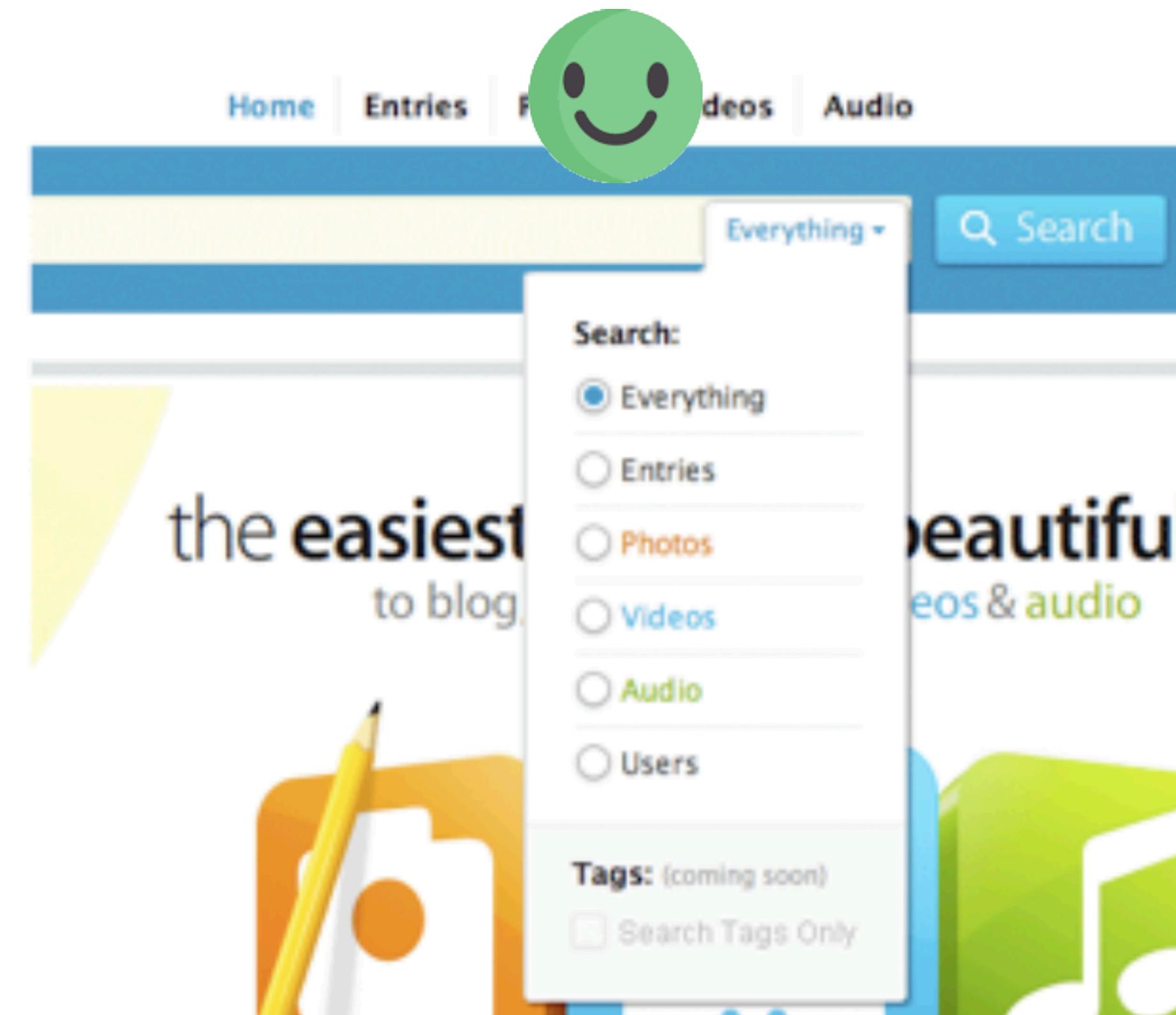
# Heurística #7: Flexibility and efficiency of use

- Permitir a utilizadores experientes acelerar a interacção
  - E.g., personalização
  - E.g., preferências e automatização



# Heurística #8: Aesthetic and Minimalist Design

- Estética geral
  - E.g., cores, contrastes, alinhamentos, etc
  - E.g., diferenciação clara entre elementos

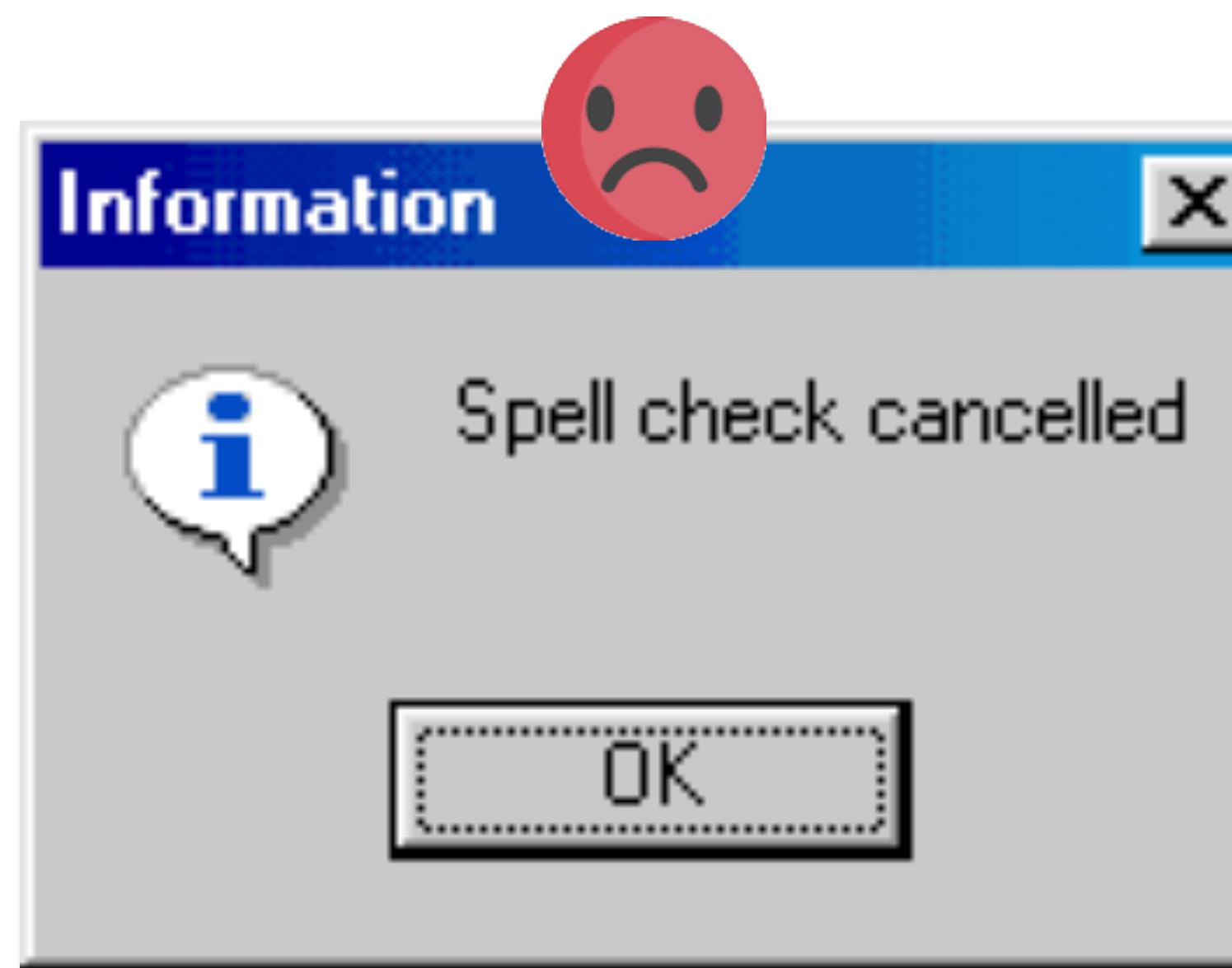


Timesheet for Theresa Neil

04 May 2009 - 10 May 2009						
CLIENT - PROJECT (TASK)	Mon May 04	Tue May 05	Wed May 06	Thu May 07	Fri May 08	Sat May 09
Client 1					4.00	
Client 2				2.50		
Client 3			4.00			
Client 4			1.00			
Client 5			1.00			
Client 6			4.50			
Client 7			1.00			
Client 8			1.00			
Client 9			1.50	1.00		
Client 10	10.00	6.00				
Total	10.00	6.00	7.00	6.00	9.50	2.00
						40.50

# Heurística #8: Aesthetic and Minimalist Design

- Apresentar apenas informação relevante e de forma comprehensível



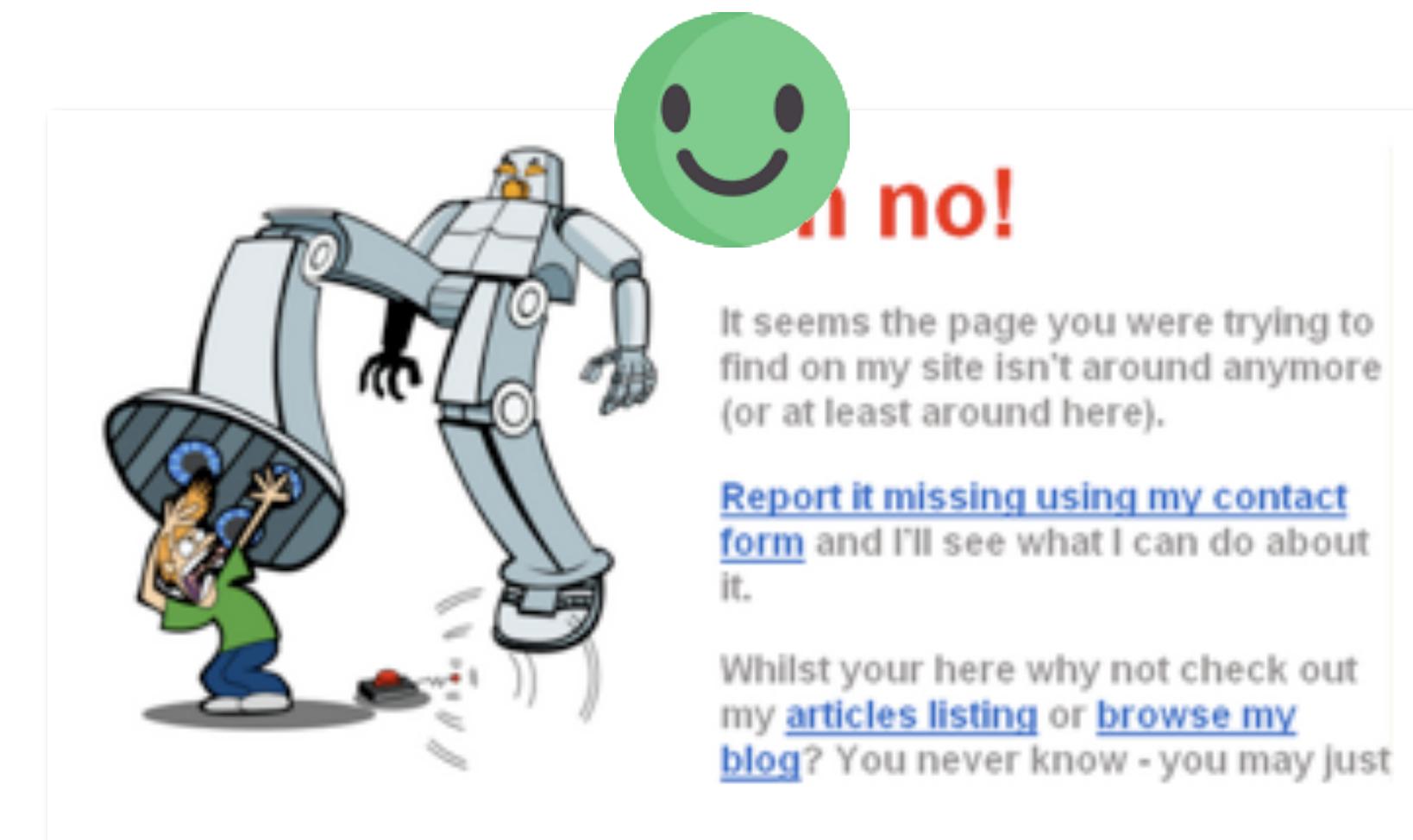
A screenshot of a software application window titled "Settlement". The top navigation bar includes tabs for Admin, Claimants, Crops/Apps, Pest, Settlement (which is currently selected and highlighted with a red circle containing a sad face emoji), and Pay To. The main content area is labeled "Settlement" and contains the following fields:

- Settlement Type: SETTLE NOW WITH A CHECK
- Close Date: 7/9/97 mm/dd/yy
- Desired Payment Date: [empty field] mm/dd/yy
- Estimated Settlement \$: [empty field]
- Total Settlement \$: [empty field]

At the bottom are two buttons: "Post and Send" and "Save for Later". Below the buttons is a row of six numbered boxes (1-6) where box 4 is green and boxes 2 and 3 are red.

# Heurística #9: Help users recover from errors

- Permitir recuperar de erros, mensagens inteligíveis
  - E.g., indicar qual o problema
  - E.g., feedback com instruções
  - E.g., sugerir soluções



Or start a new account

Choose a username (no spaces)  
bert

Choose a password  
\*\*\*

Retype password

Email address (must be real!)  
not an email

Send me occasional Digg updates.

A bert is already taken. Please choose a different username.

A Passwords must be at least 6 characters and can only contain letters and numbers.

A The email provided does not appear to be valid

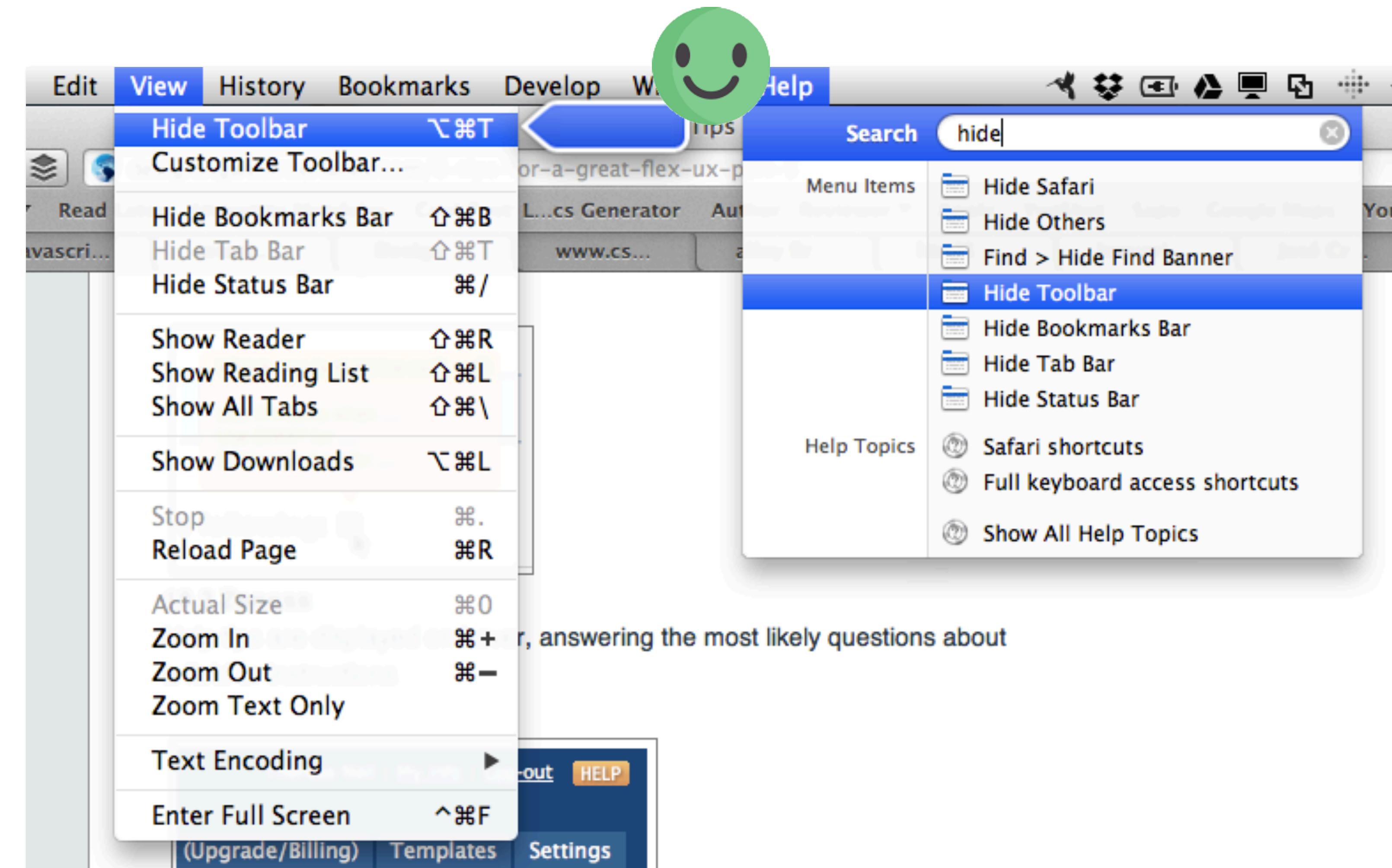
# Heurística #10: Help and documentation

- Disponibilizar documentação

💡 Não deve ser requisito para utilizar a aplicação

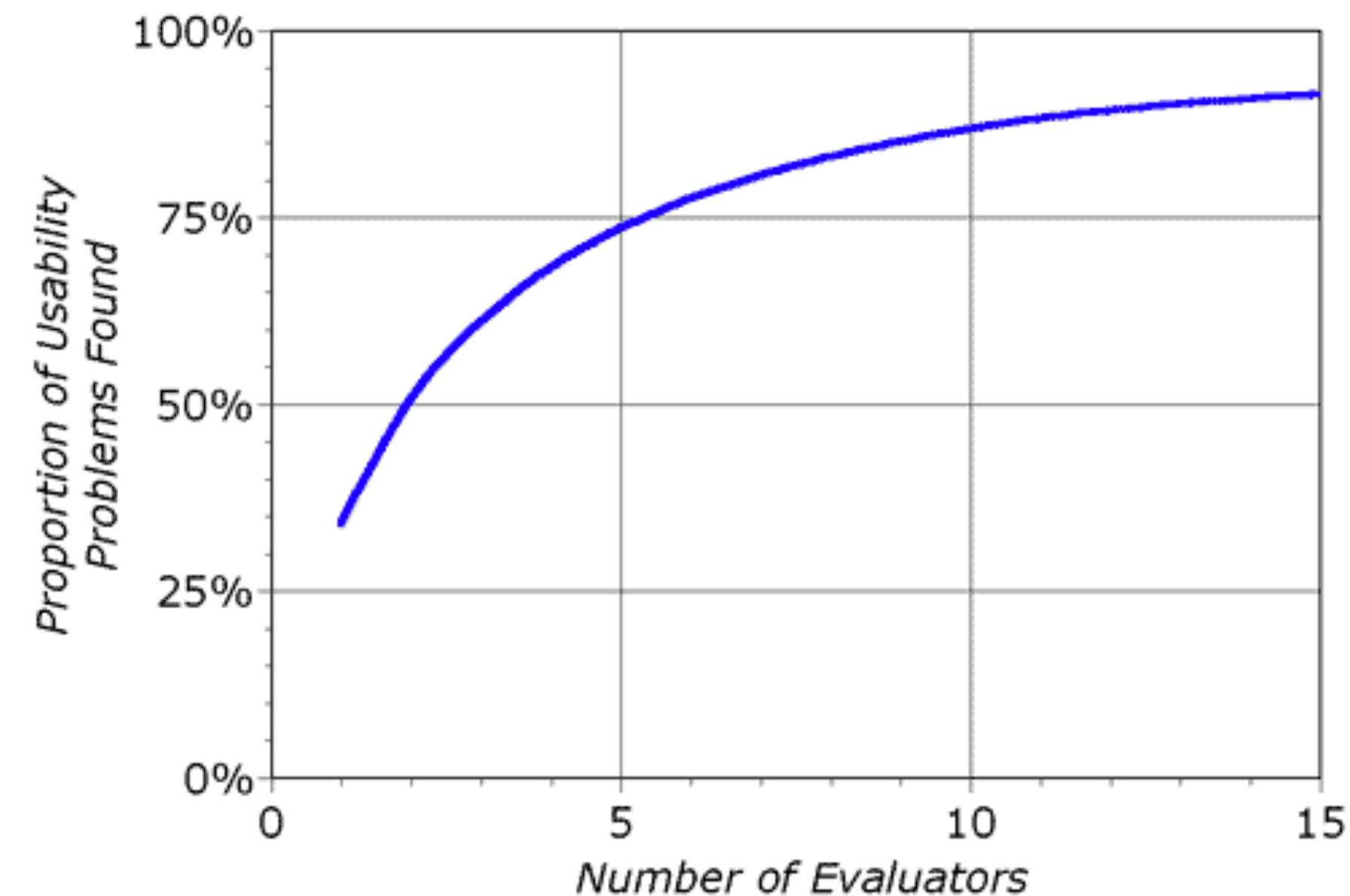
💡 É sucinta, clara e fácil de procurar?

💡 Fornece exemplos concretos?



# Avaliação Heurística

- Técnica de inspeção, “code review” para design de interfaces
  - 💡 Um conjunto de heurísticas é utilizado para guiar a análise
- É executada por equipas de avaliadores
  - + Ajuda avaliadores a encontrar problemas com interfaces
    - 💡 Avaliadores devem:
      - 💡 Ser especialistas
      - 💡 Ser exteriores à equipa de desenvolvimento
      - 💡 Proceder de forma isolada
      - 💡 Entre 3 a 5 é bom o suficiente



# Avaliação Heurística: Procedimento

- Cada avaliador:
  1. Inspecciona cuidadosamente o fluxo da interface e cada ecrã
  2. Identifica pontos onde alguma heurística é quebrada
  3. Descreve o problema
  4. Explica e justifica cada problema, referenciando as heurísticas
- Repetir o processo pelo menos 2 vezes
  1. Ganhar uma intuição do sistema
  2. Focando-se em elementos mais particulares
- Agregar os resultados de todos os avaliadores

# Avaliação Heurística: Dicas

- 💡 Avaliação heurística ≠ “user testing”
  - 💡 Avaliador ≠ utilizador
  - 💡 Avaliador ≠ developer
  - 💡 Observador: pode ajudar avaliador VS não pode influenciar utilizador
  - 💡 Avaliação heurística mais barata
  - 💡 “User testing” é o “gold standard” de usabilidade
- 💡 Avaliação heurística  $\simeq$  “code review”

# Heuristic Evaluation Form

Heurística	Dificuldades	Oportunidades de melhoria
<b>Visibility of system status</b> The system should always keep users informed about what is going on, through appropriate feedback within reasonable time		
<b>Match between system and the real world</b> The system should speak the users' language, with words, phrases and concepts familiar to the user, rather than system-oriented terms. Follow realworld conventions, making information appear in a natural and logical order.		
<b>User control and freedom</b> Users often choose system functions by mistake and will need a clearly marked "emergency exit" to leave the unwanted state without having to go through an extended dialogue. Support undo and redo.		
<b>Consistency and standards</b> Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow platform conventions.		
<b>Error prevention</b> Even better than good error messages is a careful design which prevents a problem from occurring in the first place. Either eliminate errorprone conditions or check for them and present users with a confirmation option before they commit to the action.		
<b>Recognition rather than recall</b> Minimize the user's memory load by making objects, actions, and options visible. The user should not have to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever appropriate.		
<b>Flexibility and efficiency of use</b> Accelerators unseen by the novice user may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.		
<b>Aesthetic and minimalist design</b> Dialogues should not contain information which is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.		
<b>Help users recognize, diagnose, and recover from errors</b> Error messages should be expressed in plain language (no codes), precisely indicate the problem, and constructively suggest a solution.		
<b>Help and documentation</b> Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. Any such information should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.		

# Exemplo (Blackboard)

- Goal: criar um aviso na página principal da UC, usando formatação simples

The screenshot shows the Blackboard course homepage. The top navigation bar includes links for Conteúdo, Calendário, Anúncios, Debates, Livro de classificações, Mensagens, Análise, Grupos, and Realizações. On the left, there's a vertical sidebar with icons for Home, Content, Announcements, Calendar, and Help. The main content area displays course modules:

- Informações Gerais**: Visível para os alunos. Código de acesso ao Blackboard: "IPM2526".
- Semana 1**: Visível para os alunos. T: Apresentação da UC e Conceitos base. PL: sem aulas.
- Semana 2**: Visível para os alunos. T: Human-Centered Design e Prototipagem. PL: Prototipagem.
- Semana 3**: Visível para os alunos. T: Prototipagem e Usabilidade. PL: Prototipagem.
- Semana 4**: Visível para os alunos. T: Usabilidade.
- DUC LTI**: Oculto dos alunos.

On the right side, there's a sidebar titled "Corpo docente do curso" which lists two teaching staff members: Daniel Rodrigues P... (FORMADOR) and Hugo José Pereira Pa... (FORMADOR). Below this, the "Detalhes e ações" section provides links to course details, images, class collaborate, manuals and tools, and question sets. A dashed box highlights the "Adicionar agenda do curso" button. At the bottom right, there's a help icon.

# Exemplo (Blackboard)

## 1. Visibility of system status

- + Feedback adequado, animações úteis

## 2. Match between system and the real world

- + Hierarquia de pastas intuitiva
- Módulo de Aprendizagem vs Pasta?  
Documento é uma lista de Bloco?  
Bloco é um Conteúdo vs HTML?
- Descrição de Módulo de Aprendizagem perde formatação?

## 3. User control and freedom

- + Possibilidade de cancelar todas as operações
- Conteúdos distintos com formas de edição e visualização distintas

# Exemplo (Blackboard)

## 4. Consistency and standards

- Externo: alguns conceitos específicos ao Blackboard
- + Interno: mesmos conceitos para criação / edição

## 5. Error prevention

- + Foco adequado, confirmação de “Fechar sem guardar”

## 6. Recognition rather than recall

- + Affordances da interface genericamente intuitivas
- Excepção para criação de listas em modo Conteúdo. Conversão automática?  
Menu expansível para ¶ inclui formatação de listas?

# Exemplo (Blackboard)

## 7. Flexibility and efficiency of use

- Sem atalhos ou automação
- Escolha à cabeça de Conteúdo vs HTML bastante rígida. Porque não na página principal?

## 8. Aesthetic and minimalist design

- Interface pesada. Todos os campos são necessários? Necessidade de diferentes conceitos?

## 9. Help users recognize, diagnose, and recover from errors

- + Boas mensagens de erro no geral
- O que significa tudo na conversão  
Módulo de Aprendizagem → Pasta?

Alterar para uma pasta

x

Ao alterar para uma pasta, irá remover o seguinte:

- Imagem da miniatura
- Sequenciamento forçado
- Barra de progresso
- Navegação anterior e seguinte

Pretende continuar?

Cancelar

Continuar

# Exemplo (Blackboard)

## 10. Help and documentation

- + Documentação existente
  - Para a plataforma completa. E a instância @UM?
  - Não costumizada para as tarefas do utilizador

The screenshot shows a web browser displaying the Blackboard Help Center at [help.blackboard.com/Learn/Instructor/Ultra/Course\\_Content/Create\\_Content](https://help.blackboard.com/Learn/Instructor/Ultra/Course_Content/Create_Content). The page title is "Create Content". On the left, there is a sidebar with a tree view of "Create Content" topics, including "AI Design Assistant", "Add Content from External Sources", "Add SCORM Packages", "Cloud Document", "Create Containers for Content", "Create Course Materials", "Edit and Manage Content", "Learning Object Repository", "Video Studio", "Mobile-Friendly Courses", "Reuse Content", "Assessments and Grading", "Interact with Students", "Analytics", "Watch Videos", "Original Course View", "Administrator", and "Enable the Ultra Experience". The main content area has a purple header "Create Content" and a message: "You are viewing Ultra Course View content". Below it, there is a "Create content" section with the text: "Your course creation starts on the Course Content page. You'll find it's easy to discover features and complete actions." At the bottom, there is a preview of the Blackboard course interface titled "Introduction to Humanities". A large black arrow points from the top right towards the "Help Center" header.

# Desenhar para usabilidade máxima

## Guidelines

- generic design rules
- lower authority
- more general application

## Patterns

- capture common designs
- reuse design knowledge
- more concrete application

## Principles

- general understanding
- low authority
- high generality

Usabilidade  
Máxima

## Standards

- specific design rules
- high authority
- limited application

Genérico

Concreto

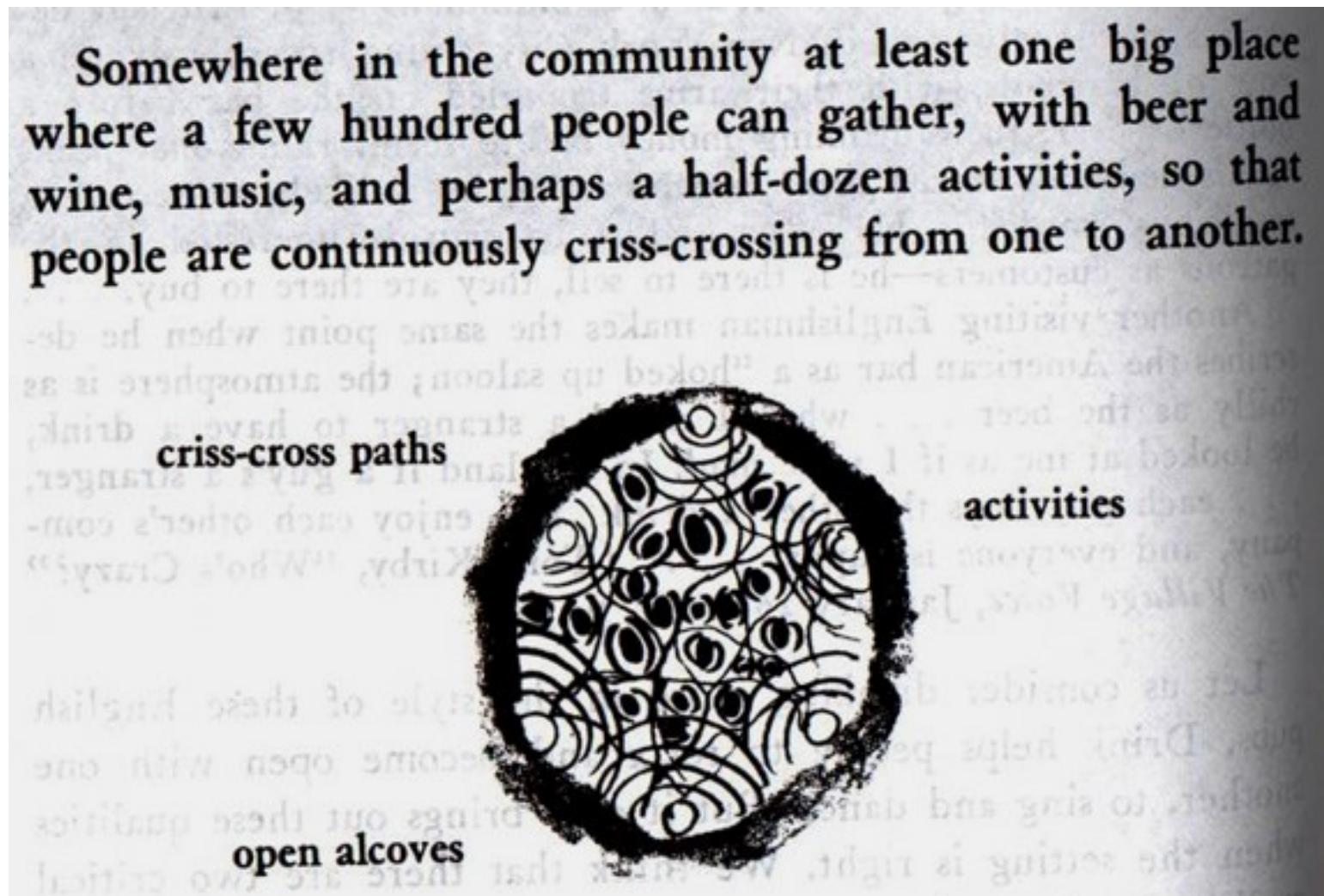
# Padrões de usabilidade

- Design consiste em encontrar soluções
  - Designers frequentemente reinventam
    - esforço significativo
    - incluindo erros!
  - 💡 Reutilizar conhecimento sobre soluções de design bem sucedidas
- **Design Patterns**
    - Implementação concreta de uma solução
    - + Indicam
      - + Qual o problema
      - + Como é resolvido
      - + Como reutilizar
      - + Ligações a outros padrões

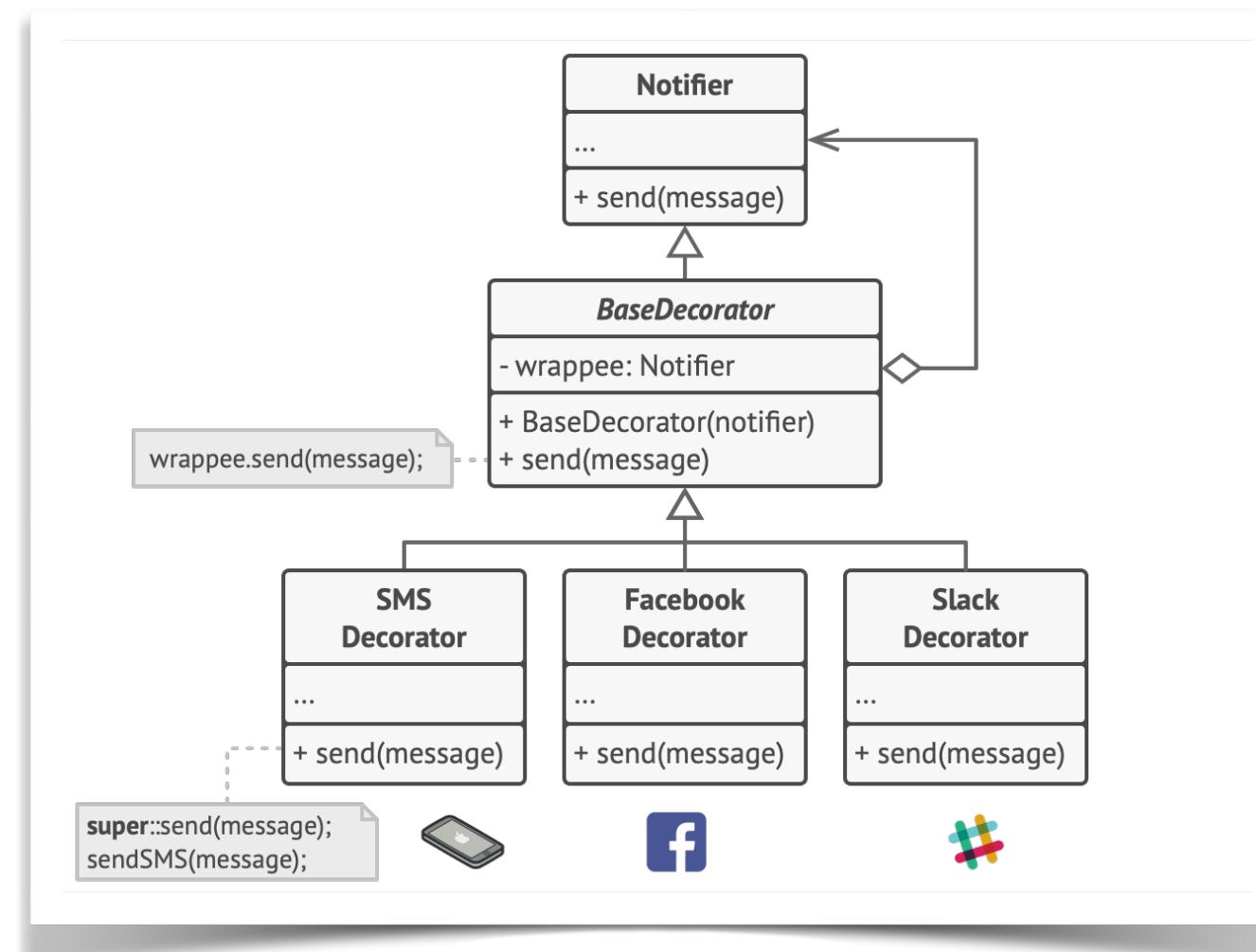
# Design Patterns

- Originários de arquitectura
- Exemplos

## Beer Hall Pattern (Arquitectura)



## Decorator Pattern (Arquitectura de Software)

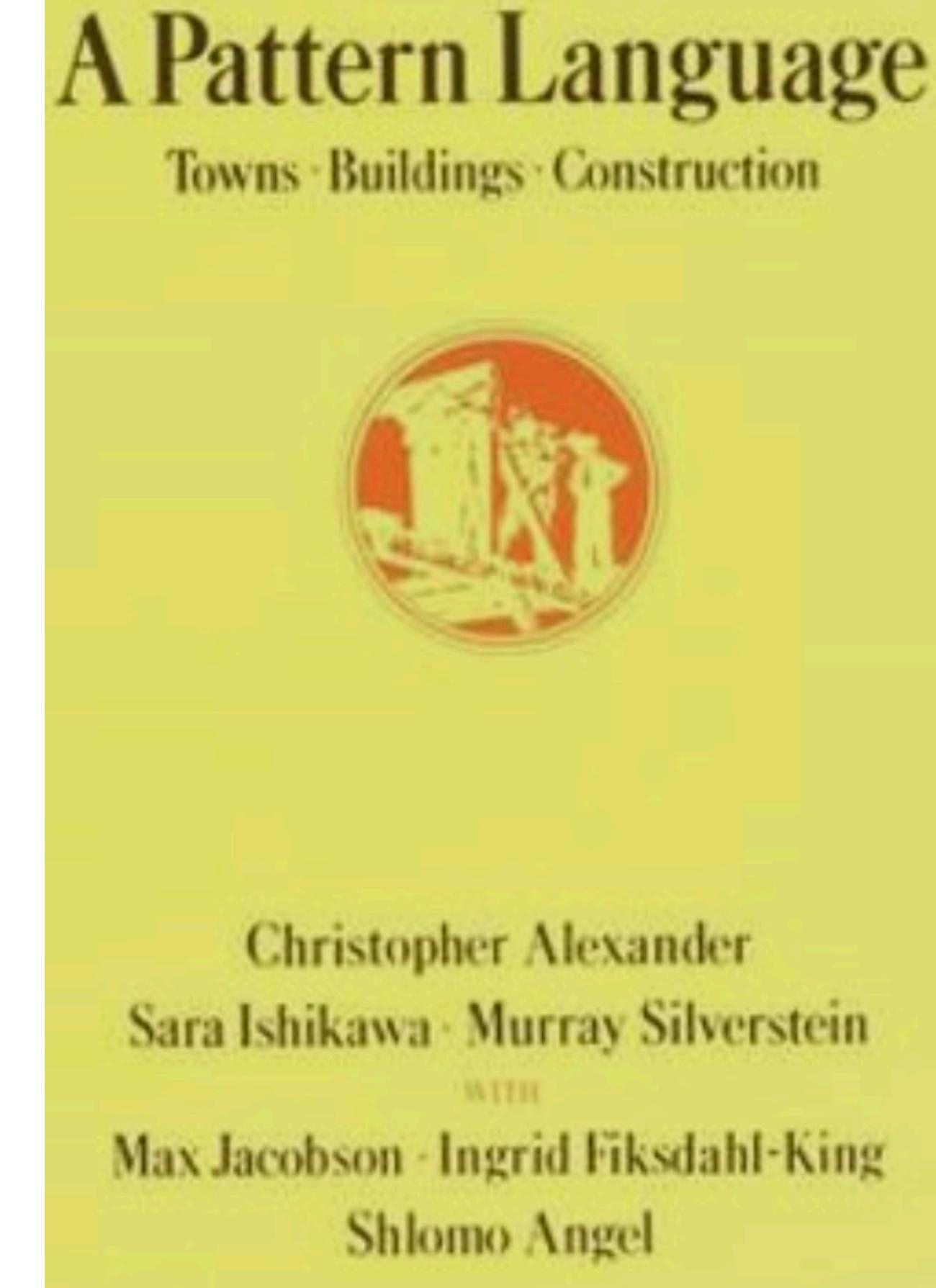


## Breadcrumbs Pattern (Interfaces Web)

UX Courses > Design for a Better World with Don Nor... > Lesson 1.6

### 1.6: Build Your Case Study: Identify Changemakers around You

Estimated time to complete: 8 mins

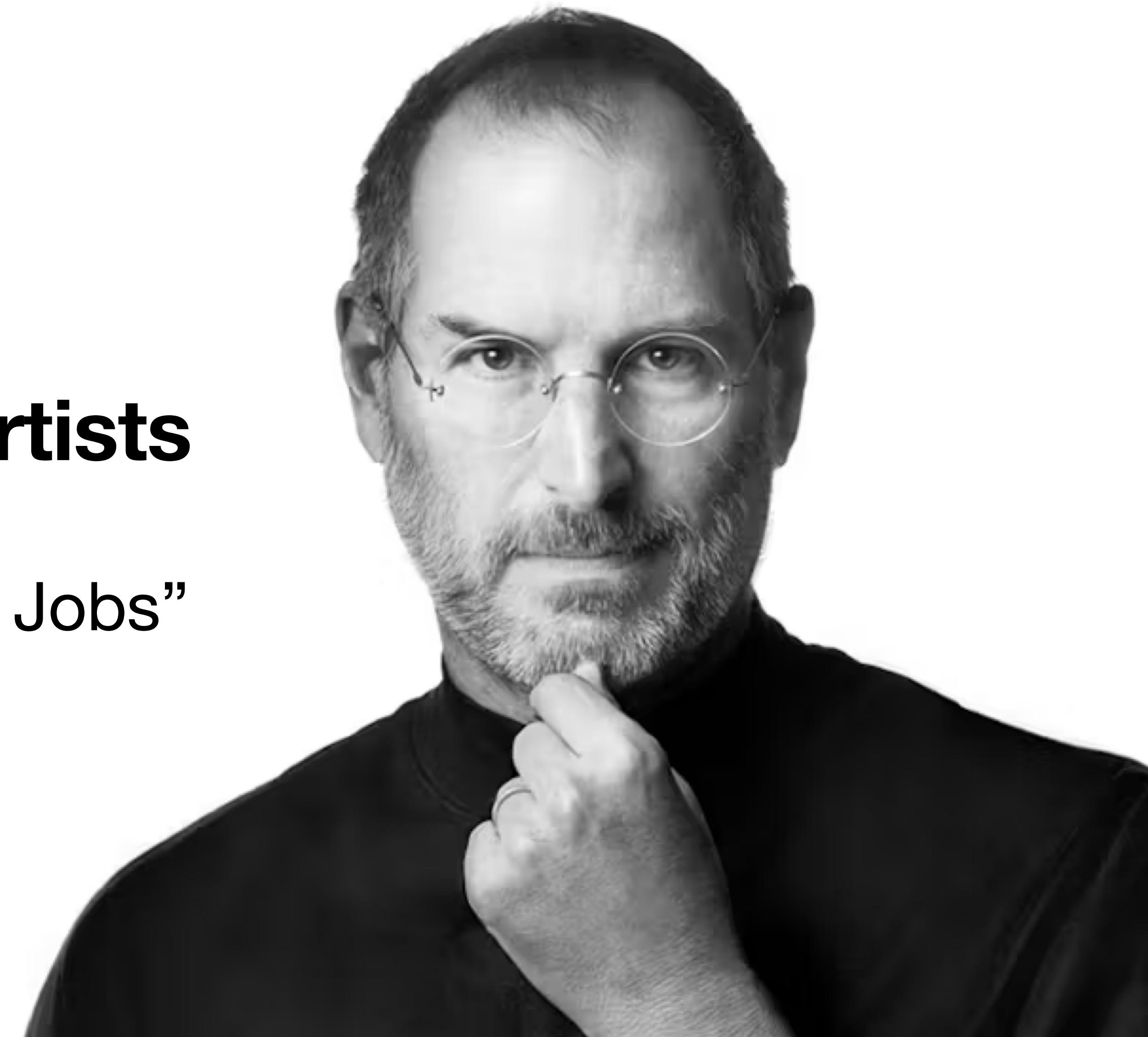


# Design Patterns

- + Evitar reinventar a roda
- + Reduzir custos
- + Designs mais testados (correção e usabilidade)
- + Modularidade de padrões permite a construção de designs completos
- + Melhoram consistência (interna e externa)
- + Melhoram learnability (vocabulário mais comum para developers e utilizadores)
- 💡 Inspirados por stakeholders influentes na área
- 💡 Com o uso, influenciam a tecnologia e podem vir a tornar-se nativos

**“Good artists copy, great artists  
steal”**

“Steve Jobs”



**“Good artists copy, great artists  
steal”**

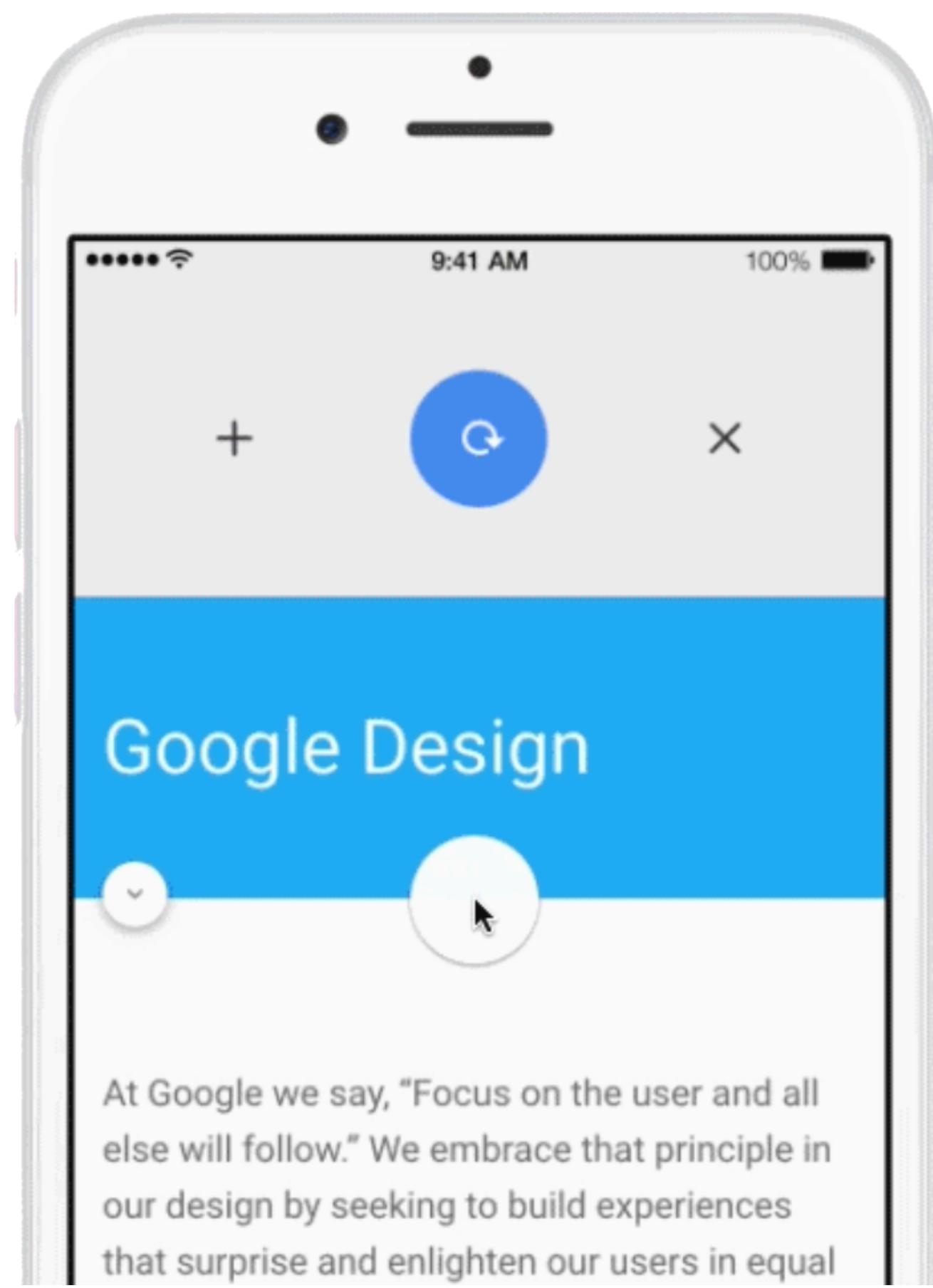
adapt and  
build upon

“Pablo Picasso”

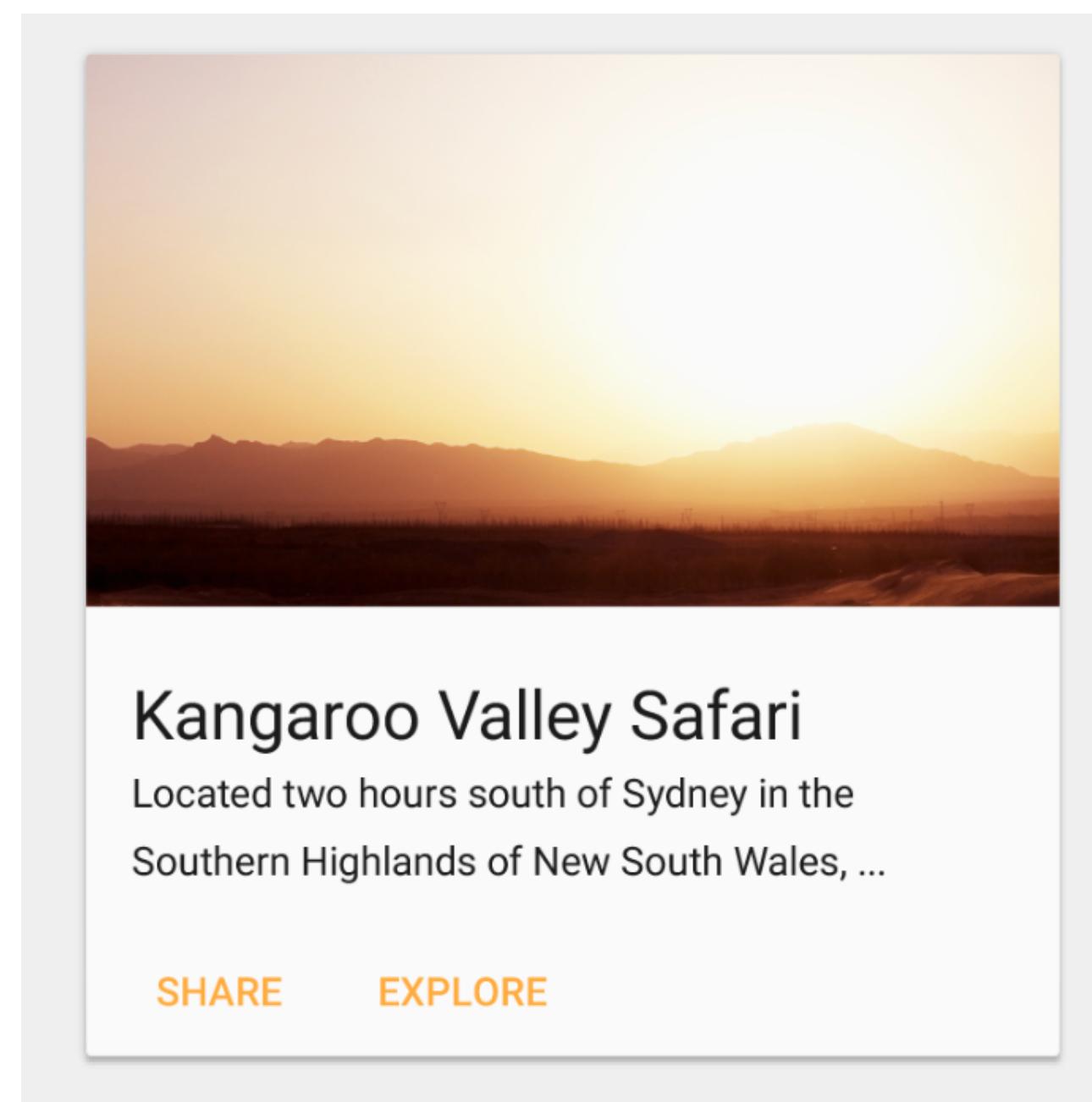


# UI Design Patterns: exemplos

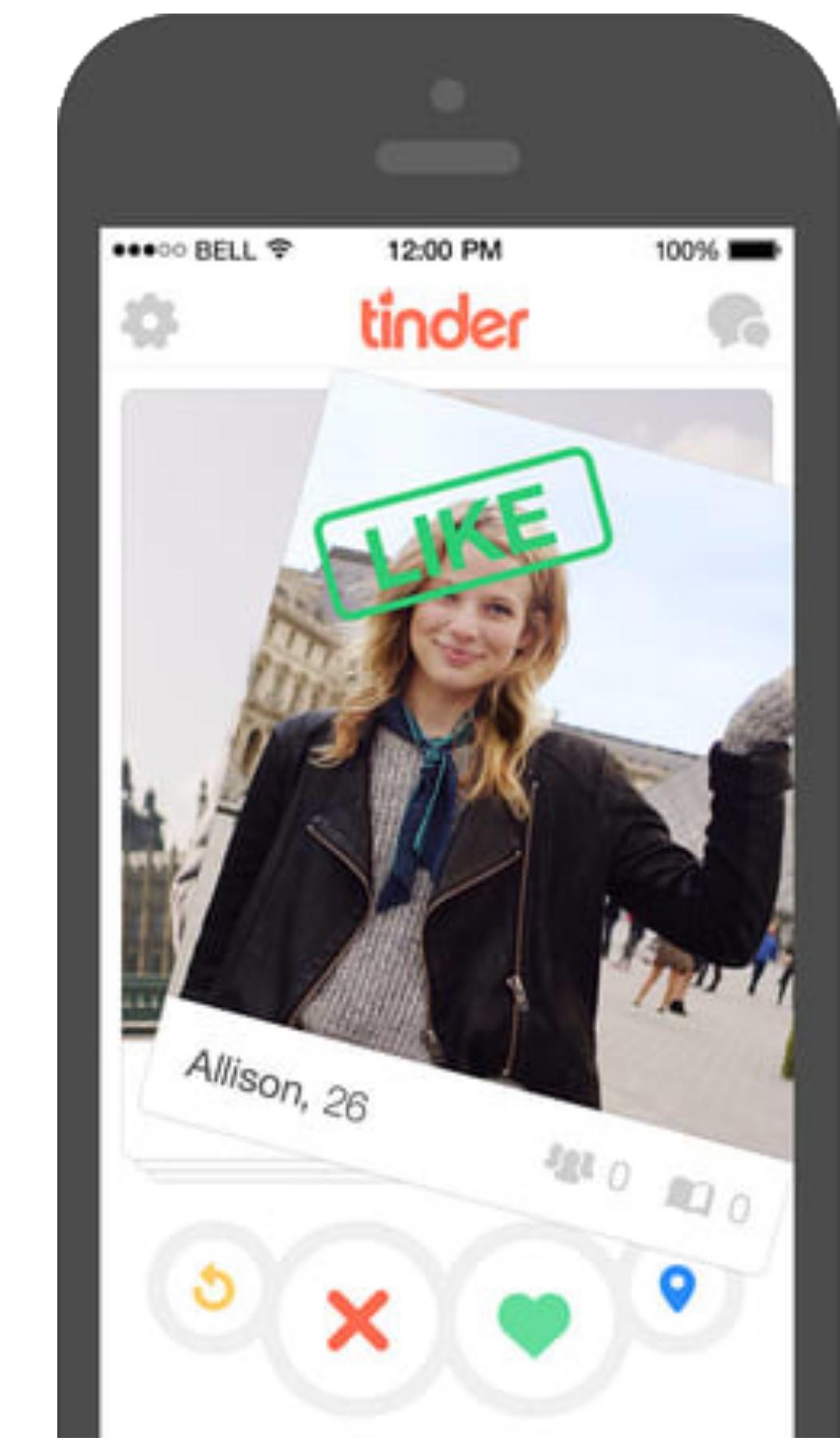
Pull to Refresh



Cards



Swipe for Yes/No

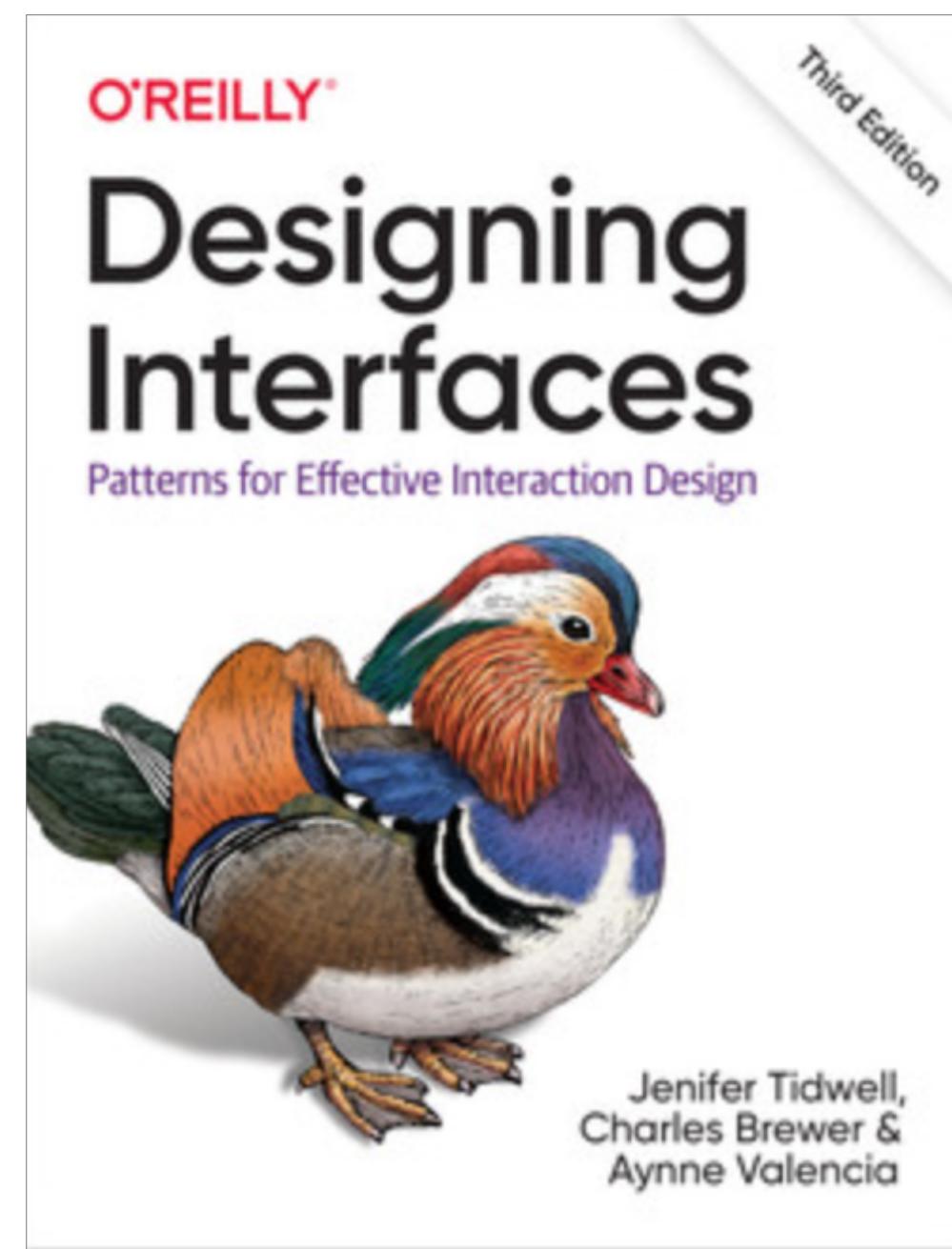


# UI Design Patterns: coleções

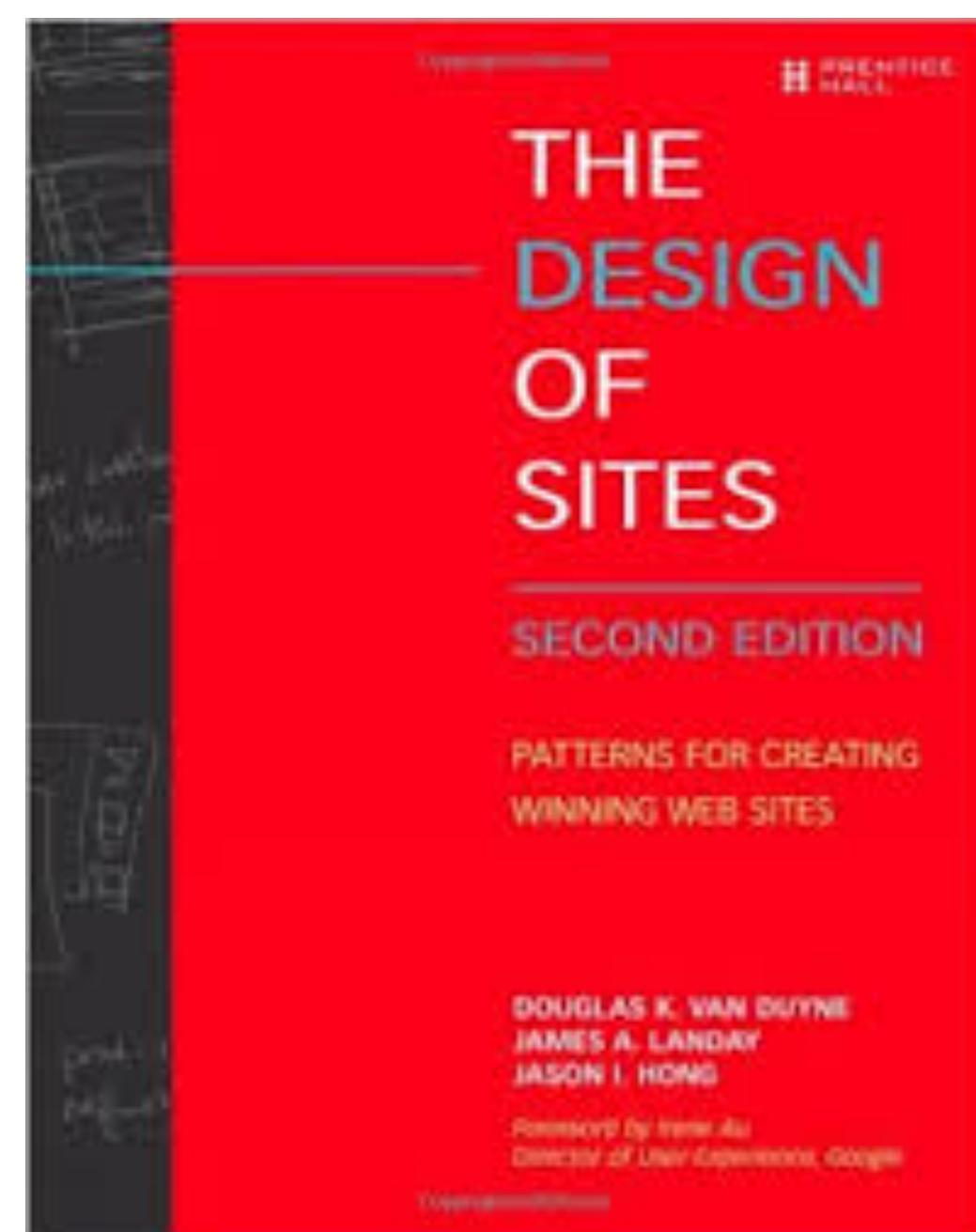
- Catálogos
  - User Interface Design Patterns
  - UI Patterns
  - Android Patterns
  - Google Material Design Components
- Sites
  - uxlibrary.org
  - interaction-design.org

- Livros

106 patterns



107 patterns



# Dark Patterns ([darkpatterns.org](https://darkpatterns.org))

- “dirty tricks designers user to make people do stuff”
- 💀 Intencionais: manipular ou enganar o utilizador
- 💀 Exploram um bom conhecimento de psicologia humana
- 💀 Gravidade vai desde irritante a roubo
- 💀 Muitas vezes ilegais (<https://www.deceptive.design/laws>)
- 💰 Motivações: mais clicks, mais utilizadores, mais vendas
- ! Utilizadores podem evitarem cair neles
- ! Empresas podem ser forçadas a mudar as suas práticas

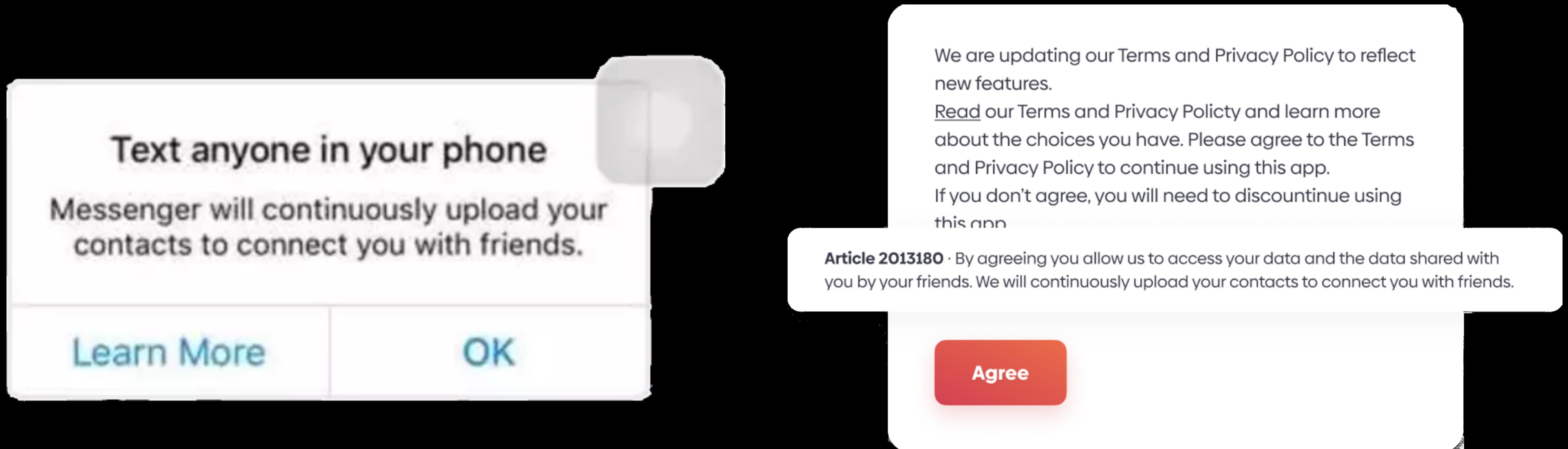
**DECEPTIVE  
PATTERNS**  
EXPOSING THE TRICKS  
TECH COMPANIES USE  
TO CONTROL YOU



**HARRY BRIGNULL**

# Exemplo: Forced action (“Privacy Zuckering”)

- Enganar utilizador a executar ação indesejada
- E.g., partilhar informação de forma não intencional



# Exemplo: Hard to Cancel (“Roach Motel”)

- Fácil de entrar, difícil de sair
- E.g., subscribe / unsubscribe

The New York Times

## My Account

MY ACCOUNT > PURCHASE HISTORY > CANCEL

### Cancel My Subscription



**Are you sure you want to cancel?**

Remember, once you cancel you'll lose unlimited access to the world's most influential reporting, opinion and commentary in journalism today.

[Go Back To My Account](#)

### Still want to cancel?

We're sorry to see you go.

To cancel your subscription quickly and easily, please call Customer Care at 877-698-5535

Hours of Operation:  
Monday — Friday, 7:30 a.m. ET through 9:00 p.m. ET  
Saturday and Sunday: 7:30 a.m. ET through 5:00 p.m. ET

NYKAA

Search FAQs Submit

Delete nykaa account Submit

### Common Questions

**What is the subscription refund policy?**  
If you are on the monthly payment plan, we will stop charging your account starting next month. If you are on the annual payment plan, you will receive a prorated refund.  
[See cancellation policy](#)

**What happens to my account?**  
You will continue to have unlimited access for any remaining time on your pre-paid billing cycle. Thereafter, you can access NYTimes.com as a visitor and read limited articles each month for free. To receive unlimited articles each month you will need to re-subscribe.

**What if I want to renew my subscription?**  
No problem! You can renew your digital subscription at any time to get full access to NYTimes.com on the Web and on mobile devices.

**How can I make a Nykaa account?**  
Just click on the 'Account' button on the top right-hand corner of the page and register using phone number or email address. Fill in your name and password.  
  
You can even sign up using your Google account. Yes, it is that simple.

[Write to us](#)

### FAQs Related to the *Delete nykaa account*

Help-Center

How can I change address or phone number in Order? +

Why is my order not showing? +

Nykaa Return Policy +

I have received a damaged /defective /wrong product in my order, how should I proceed? +

How can I track my Return Status? +

Can I return part of my order? +

# Exemplo: Hidden subscription (“Forced Continuity”)

- Subscrever o utilizador sem o seu conhecimento claro ou consentimento explícito
- E.g., cancelar a qualquer altura durante o “free period”

**Card Details**

Why do we need your card details?  
Your card is used to verify your identity. Don't worry, your card will NOT be charged for membership during your free 30 day trial and there is no obligation to continue with the service after the trial period.

If you choose to stay as a member after your free 30 day trial your card will be charged a monthly membership fee of £14.99.

Card type \*

Visa    MasterCard    Maestro    American Express

If you have a Visa or MasterCard, you can select this option to see your credit report instantly online, and if you have a Maestro card you may be able to get access instantly also (all subject to identity verification).

Card number \*

Expiry date \*

Security number \*   
The last 3 digits on the signature strip on the back of your card

DEPARTURE • Iberia Check-in baggage included!

09:05	— 1h 50'  direct —	10:55
Orly (ORY) Paris		Palma de Mallor... (PMI) Palma de Mallorca

RETURN • Multiple airlines Hand luggage

23:50	— 10h 25'  1 stop —	10:15 <sup>+1</sup>
Palma de Mallor... (PMI) Palma de Mallorca		Orly (ORY) Paris

**Prime price**  
*30-day free trial*

Only 4 tickets left!

~~€443.48~~ **€389.09**  
Prime fare per passenger

Non discounted fare: **€443.48** ←...

Select

# Exemplo: Hidden Costs

- Custos escondidos na fase final do processo, depois de o utilizador estar investido
- E.g., “facility charge”, “convenience charge”, “order progressing fee”

Type	Full Price Ticket
Ticket Price	CA \$47.00 x 2
Facility Charge	CA \$2.00 x 2
Convenience Charge	CA \$3.75 x 2
<b>SUBTOTAL CA \$105.50</b>	
Tickets/Items	CA \$105.50
Order Processing Fee	CA \$2.50
Regular Mail	No Charge
<b>TOTAL CHARGES CA \$108.00</b>	

1. Towards the start of the user's journey on stubhub.com, they are shown a price.

112	
Row Y	
You'll pay	
<b>\$310 each</b>	Quantity 1 ticket

2. The user proceeds through multiple steps in which they must enter their name, phone number, email and postal address. Only then are they shown the total price. In this case it is a 29% increase.

Ticket Price	1 x US\$ 310.05
Service Fee	1 x US\$ 86.13
Fulfillment Fee	1 x US\$ 4.95
<b>TOTAL PRICE</b>	<b>US\$ 401.13</b>

# Exemplo: Disguised Ads

- Disfarçar publicidade como elementos da interface
- Anti-“Aesthetic and Minimalist Design”

**Sketch, 3 years old**  
Sketch is a friendly and playful dog. His owner has, unfortunately, passed away.

**Dog Food Brand**  
This dog food is great for all types of dogs. Your fluffy pet is going to love it!

[Adopt Sketch](#)      [Learn More](#)

**SOFTPEDIA®**  
Updated one minute ago

**TODAY'S NEWS:** Bell Gives One Free Galaxy S Daily until Launch Day, August 6

[Home > Mac > Utilities > Last Chance To See > Download](#)

**Last Chance To See 4.0: Free Download**

**Recommended Download**

**Update Audio Drivers** Instant Driver Downloads  
Updates All Windows Drivers  
Auto-Repairs PC Errors

**DOWNLOAD LOCATIONS for Last Chance To See 4.0:**

**External mirror 1** [ZIP]

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**Add your comment:**  
Tell us your opinion or ask for help from a fellow Softpedian.

Last Chance To See is a Mac OS X Reader designed for the application „Last Chance To See...“, that was published by Voyager in the year 1992. If you own the original application CD-ROMs (2 CD-ROMs were included in the box) you have just to replace the original application included on the CD (which has been created for Windows) by this Reader.

# Exemplo: Trick Wording

- Utilizar linguagem enganadora para dissimular ações
- Aproveitar o facto de utilizadores estarem habituados a não ler em detalhe
- Tipicamente combinado com estética e componentes da interface

Search » Select » Services » Payment » Itinerary

**Passenger Details - All passenger names must match those in the passport/accepted travel document**

1 Title First name Last name 0.00 GBP  
Beat the queues, buy priority boarding: Yes  No  0.00 GBP  
Buy AXA travel insurance [View policy benefits](#) Please select a country of residence 0.00 GBP  
If you do not wish to buy insurance select [No Travel Insurance](#) in the drop down menu.

**SMS Confirmation**  
Click Yes to receive a text message confirming your Reservation Number and flight details ([Click for information](#)). Yes  No  0.00 GBP  
Your mobile phone number will be entered on the following page and will only be used to send important flight information.

**Ryanair Approved Cabin Bag**  
Samsonite Yes  No  0.00 GBP  
The Samsonite Aspire cabin bag is available exclusively at Ryanair.com and is approved for carriage on Ryanair flights, subject to our cabin baggage weight and size restrictions detailed in the cabin bag specification below.  
If you would like to purchase an approved Ryanair Cabin bag from Samsonite please click "Yes" (Cabin Bag specification)

**Free Delivery!**

**Flights**  
Going Out: 11/10/2010 10:30hrs  
East Midlands - Berlin  
1 x Adult 10.99 GBP  
Taxes/Fees 0.00 GBP  
1 x Web Check in 5.00 GBP  
Coming Back: 18/10/2010 13:45hrs  
Berlin - East Midlands  
1 x Adult 16.99 GBP  
Taxes/Fees 0.00 GBP  
1 x Web Check in 5.00 GBP

**Total**  
Total Cost 37.98 GBP  
Excluding administration fee (if applicable)

Search » Select » Services » Payment » Itinerary

**Passenger Details - All passenger names must match those in the passport/accepted travel document**

1 Title First name Last name 0.00 GBP  
Beat the queues, buy priority boarding: Yes  No  0.00 GBP  
Buy AXA travel insurance [View policy benefits](#) Please select a country of residence 0.00 GBP  
If you do not wish to buy insurance select [No Travel Insurance](#) Please select a country of residence **This is the default**

**SMS Confirmation**  
Click Yes to receive a text message confirming your Reservation Number and flight details ([Click for information](#)). Your mobile phone number will be entered on the following page and will only be used to send important flight information.

**Ryanair Approved Cabin Bag**  
Samsonite **This is how you opt out!** Free Delivery!  
The Samsonite Aspire cabin bag is approved for carriage on Ryanair flights, subject to our cabin baggage weight and size restrictions detailed in the cabin bag specification below.  
If you would like to purchase an approved Ryanair Cabin bag from Samsonite please click "Yes" (Cabin Bag specification)

**Flights**  
Going Out: 18/07/2010 16:45hrs  
Aberdeen - Dublin 79.99 GBP  
1 x Adult 31.96 GBP  
1 x Web Check in 5.00 GBP  
Coming Back: 29/07/2010 16:50hrs  
Dublin - Aberdeen 29.99 GBP  
1 x Adult 29.99 GBP  
Taxes/Fees 0.00 GBP  
1 x Web Check in 5.00 GBP

**Total**  
Total Cost 151.94 GBP  
Excluding administration fee (if applicable)

# Desenhar para usabilidade máxima

## Guidelines

- generic design rules
- lower authority
- more general application

## Patterns

- capture common designs
- reuse design knowledge
- more concrete application

## Principles

- general understanding
- low authority
- high generality

Usabilidade  
Máxima

## Standards

- specific design rules
- high authority
- limited application

Genérico

Concreto

# Standards de usabilidade

- Sumariam e generalizam conhecimento existente numa comunidade ou área de aplicação
- + Utilizadores necessitam de menos treino
- + Developers podem reutilizar conhecimento existente e automatizar processos
- + Produto tem mais qualidade (eficaz, eficiente e acessível para utilizadores)
- + Manutenção é mais fácil quando existe consistência

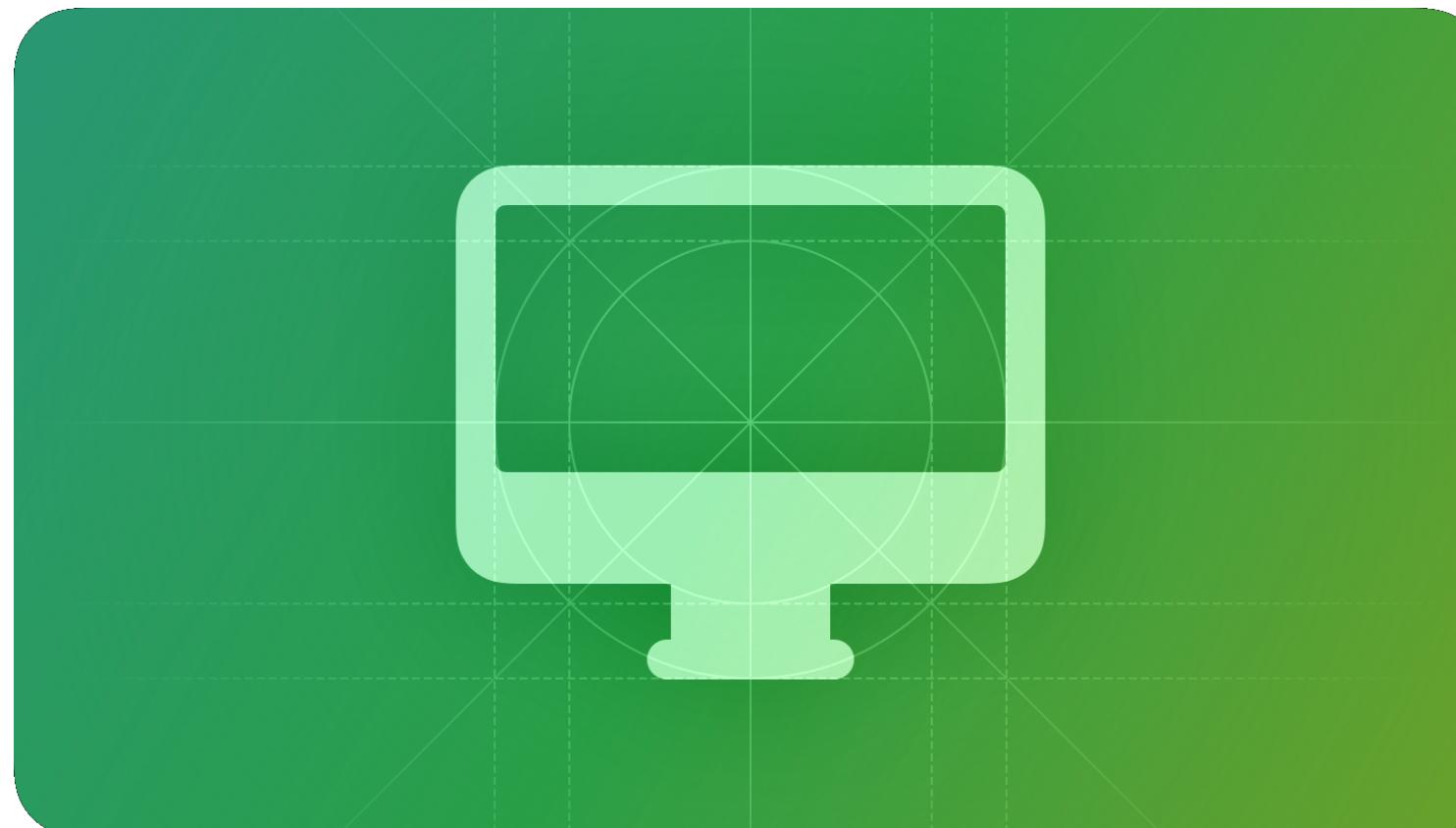
# Standards de usabilidade: Oficiais

- Definidos por corpos nacionais ou internacionais, para garantir “compliance“ dentro de uma comunidade
- Assentes em fundamentos teóricos e para tecnologias estáveis
- Standards de hardware mais comuns do que standards de software
  - ARINC 661: definition of a Cockpit Display System
  - ISO 9241: ergonomics of Human System Interaction
    - 100 series: Software ergonomics
    - 300 series: Displays and display related hardware
  - EC Directive 90/270/EEC: minimum safety and health requirements for work with display screen equipment
  - IEEE 12207: addresses software life cycle processes, including usability engineering
  - IEC 62366: usability of Medical Devices

# Standards de usabilidade: Corporativos

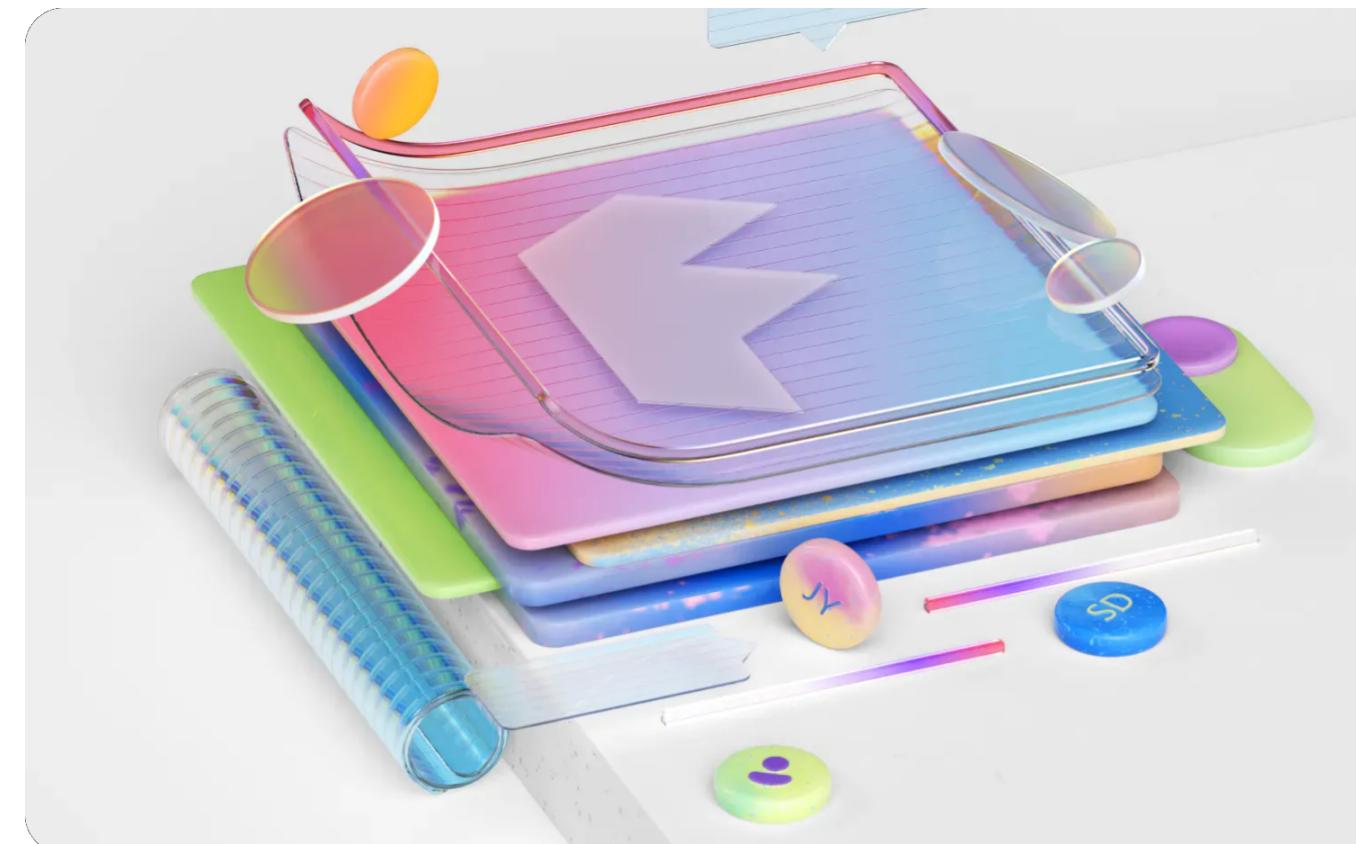
- Definidos por cada empresa, para consistência de produtos
- Tendem a ser standards de design

Apple's Human Interface Guidelines  
(iOS and macOS)



<https://developer.apple.com/design/human-interface-guidelines>

Microsoft Fluent Design System  
(web, iOS, Android and Windows)



<https://fluent2.microsoft.design/>

Material Design by Google  
(Android and web)



<https://m3.material.io/>

Os 3 suportam Figma UI Design Kits