The user in the cultures of UX design and open source

Jan Dittrich

Design in Open Source seems hard

Different Values, Different Practices

The User

Eric S. Raymond: The Cathedral and the Bazaar

Donald Norman: The Design of Everyday Things

The Cathedral and the Bazaar

User and Creator are the same person

User and Creator are the same person

...from the start:

“1. Every good work of software starts by scratching a developer's personal itch”

User and Creator are the same person

...and with growth

“6. Treating your users as co-developers is your least-hassle route to rapid code improvement and effective debugging.”

User and Creator

In “The Cathedral And the Bazaar”

Are ideally the same person

Creating for their own need/use

Attracting other, similar people

In “The Design of Everyday things”

User and Creator must be different

...In their work, designers often become expert with the device... Users are often expert at the task...

p156

User and Creator must be different

“Design teams really need vocal advocates for the people who will ultimately use the interface”

Because

[Creators] “tend to simplify their own Lives.”

p156

User and Creator must be different

The only way to find out is to test the designs on users-people as similar to the eventual purchaser of the product as possible.

p156

User and Creator

In “The Cathedral And the Bazaar”

Are ideally the same person

Creating for their own need/use

Attracting other, similar people

In “The Design of Everyday things”

Have different expertise

Have different interests

Creators need thus to learn what helps users by empirical methods

User and Creator

In “The Cathedral And the Bazaar”

Are ideally the same person

Creating for their own need/use

Attracting other, similar people

Assumes a community of like-minded user/creators who can code

In “The Design of Everyday things”

Have different expertise

Have different interests

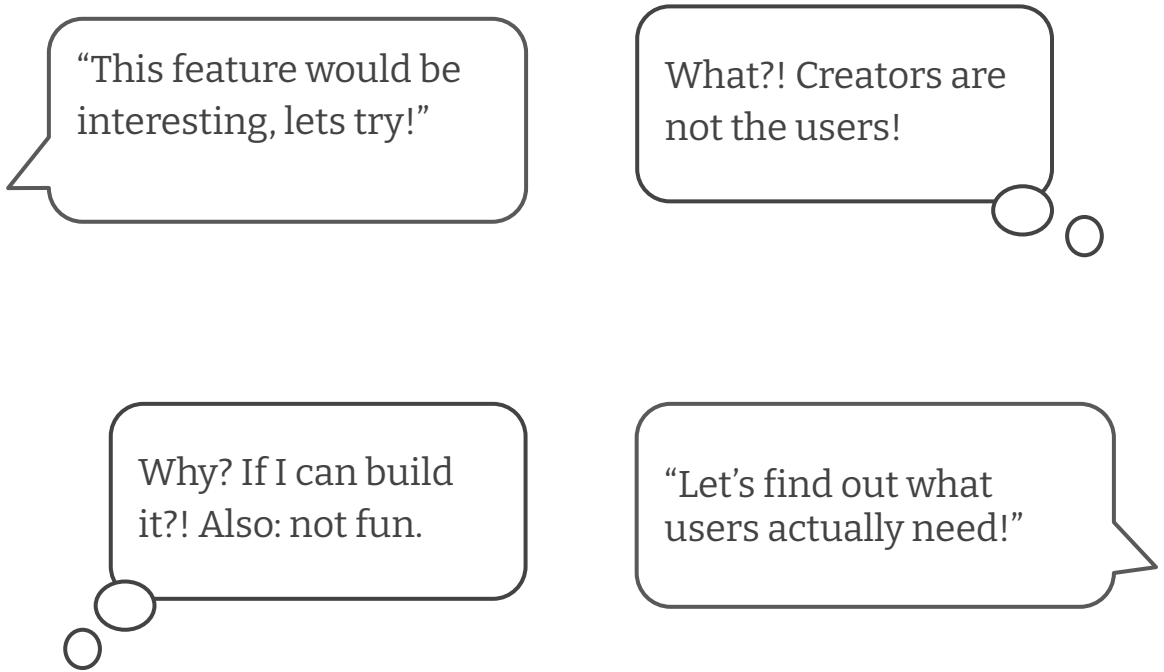
Creators need thus to learn what helps users by empirical methods

Assumes an organization with division of labor around creating products that are bought

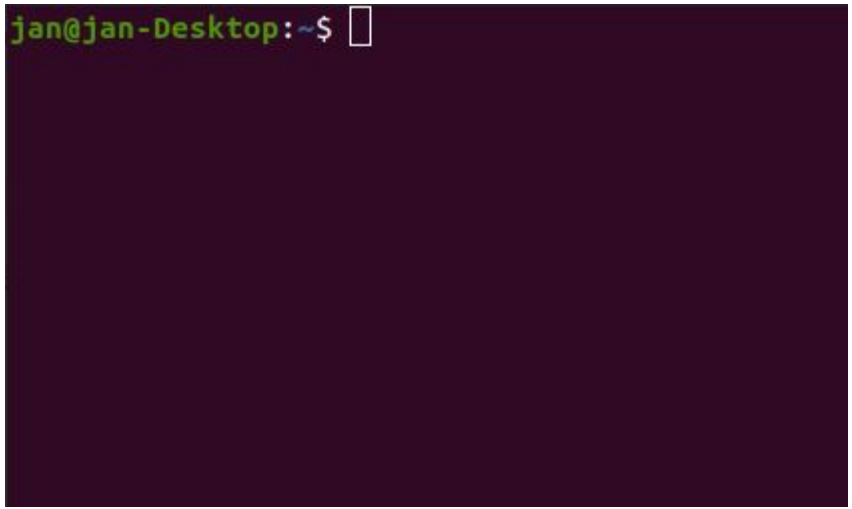
User and Creator

Open Source

UX



Easy to modularize, hard to use for beginners



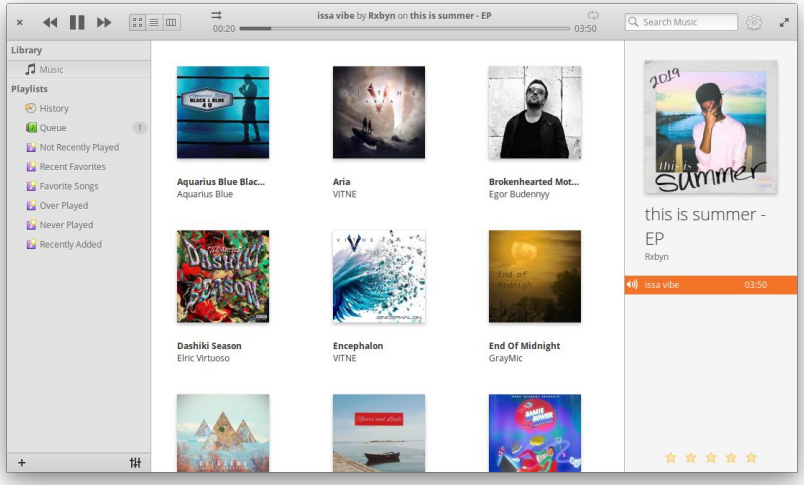
Add a parameter

Call another program

Pipe it

Everything is possible

Hard to modularize, easy use for beginners



Screenshot from https://github.com/elementary/music

One coherent UI

Works like the ones you know

But what if I WANT TO ADD A BUTTON for...

What is modular about GUIs?
Icons!

Libre Office Themes

Elementary

Colibre

Yaru

So much Open Source Design is icon design since changing/adding icons

it does not clash with typical open source development concerns – or actually fits it well

Coherence

The model of the “Bazaar” tolerates incoherence. Or needs it. The best ways will win in the end.

Incoherence is also no problem, as the competent user/creator will have no problem with it

The “Design of Everyday Things” needs coherence. With the existing skills of users, within the product

Incoherence is a problem, as the user might know nothing about the products technology.

Coherence

Incoherence in the UI is also no problem, as the competent user/creator will have no problem with it.

Coherence in the UI is a problem, as it makes changes hard and conflict and politics-prone.

Problems should be solved by modularity and experimentation

Incoherence in the UI is a problem, as the user might know nothing about the products technology.

Coherence is great, it will create ease of use

Problems should be solved by finding needs and principles

Combining the needs?

Modularity

Experimentation

Being competent creator and user

Coherence

Empiricism

NOT being the user but learning about them

Combining the two?

Hard

But here are some helps for small wins

Boundary Objects for collaboration

Boundary Objects for collaboration

Interface Design Guidelines

Design Systems

(GUI) Extension APIs

Interface guidelines

Back to the 90s!

When to use which element and why

Whether you are a developer or a designer, these guidelines contain everything you need to design effective applications using GTK. They cover design principles for GNOME 3, common guidelines such as how to write text and use images and icons, as well as a library of design patterns which you can use in your application.

While the HIG places an emphasis on designing for GNOME 3, it can also be used to create cross-platform applications, as well as for applications that have previously followed the GNOME 2 Human Interface Guidelines. The compatibility guidelines contain more information on this.

Core material

Patterns and user interface elements form the core of the HIG. Together, they are the building blocks for application design. If you are new to the HIG, it is recommended that you start with the page on design principles and then browse the patterns, before going on to other material.

Design principles	General design guidelines and advice.
Patterns	Essential and optional design components.
User interface elements	Guidelines on common elements, such as buttons, progress bars and popovers.

Common guidelines

These guidelines apply to the full range of design elements. It is recommended that you familiarize yourself with them.

Application basics	Basic application behavior and characteristics.
Compatibility	Using the HIG for cross-platform or GNOME 2 style applications.
Visual layout	Arranging elements within user interfaces.
Writing style	Writing text for your user interface, including capitalization rules.
Icons and artwork	Guidelines on selecting and creating icons.
Typography	Advice on font sizes, weights and styles, as well as special characters.
Pointer and touch input	Mouse, touchpad and touchscreen interaction.
Keyboard input	Keyboard navigation, access and shortcut keys.

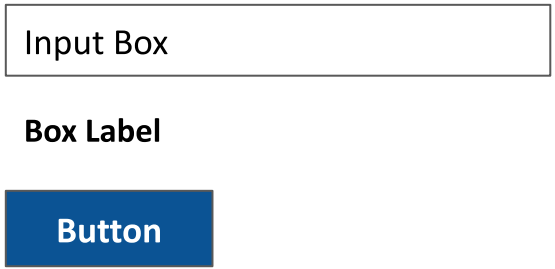
Gnome Interface Guidelines Screenshot,

Interface guidelines

https://docs.microsoft.com/en-us/windows/win32/uxguide/guidelines

Design systems

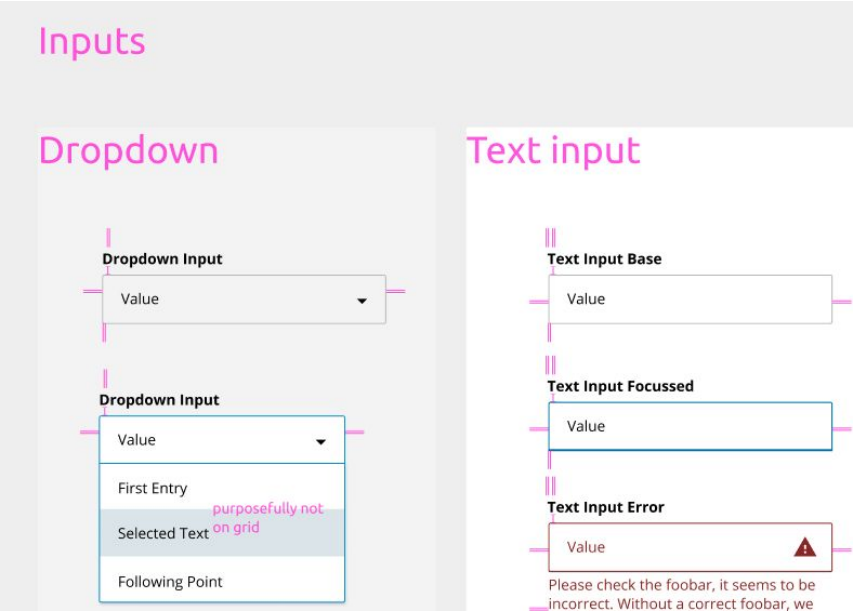
UI Elements...



... and how to combine them

Atomic Design by Brad Frost
Manage a Design System in Storybook, Dev focus

Design systems



Extendable UIs

Coherent mechanism for UI extension and an API of what such an extension is allowed to do (without messing up other functions)

Extendable UIs

Might be a mess in the managed-by-extension space BUT at least not messing with the rest of the application.

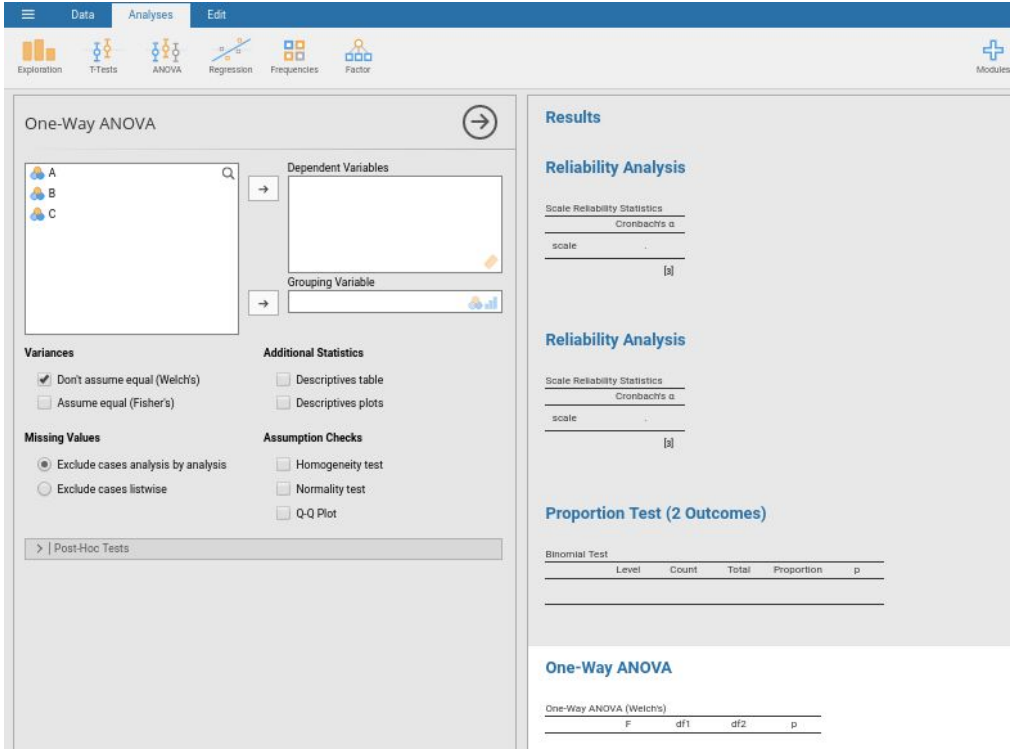
[Firefox Web Extensions]

[Chrome Browser Extensions]

Extendable UIs

Best if build upon a design system and/or with the standard GUI elements

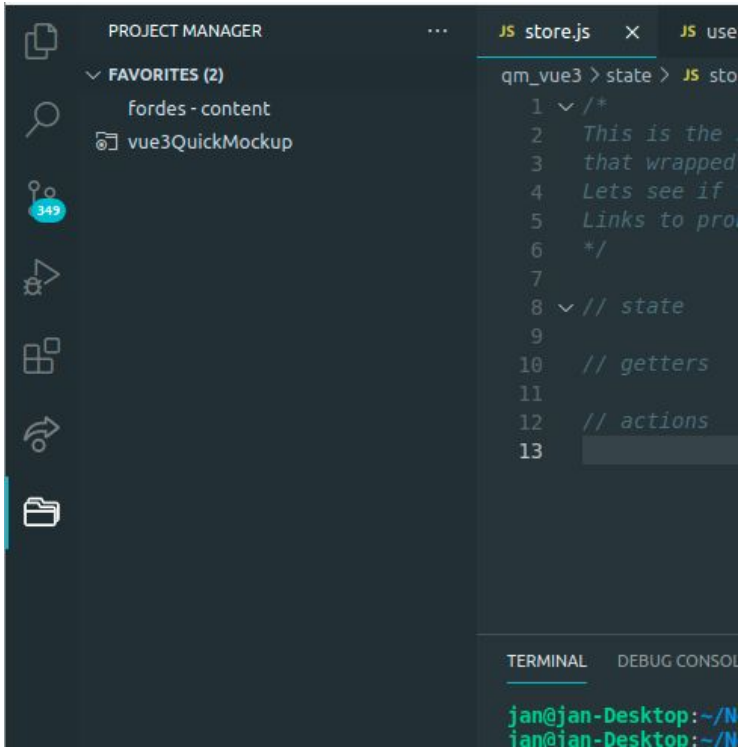
[Jamovi Statistics]



Extendable UIs

Best if build upon a design system and/or with the standard GUI elements

[VS Code]



Recap

Very different views on what a “good” user is and how to work with them

Open Source: Experimenting user/creator in a community similar to them
UX Design: Designing for others using empirical research.

Boundary Objects shared by designers and devs:
– Interface Guidelines
– Design systems

Create APIs for changing UIs

Thank You

Jan Dittrich

Works at Wikimedia Deutschland e.V
as user researcher

@simulo

d_jan@ymail.com