Dashboard Research

-dashboard: brief overview (experience and web research)

Tina Adams: UX/Visual Design Hybrid Lead
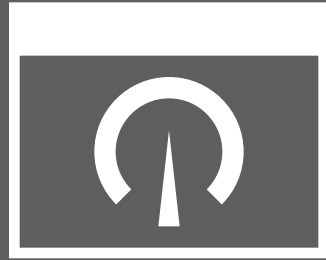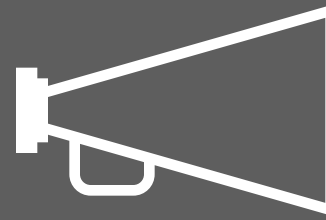
IBM ECM
Design Studio

VS

warning

It is very easy to confuse a **dashboard vs notification** use case.

Before you embark on the lengthy process of developing a dashboard for your users, **ensure that you really understand what your user's need**.

Sometimes, all a user really needs **is a simple notification delivered via email or text or desktop icon**, that a system or process is in need of attention, or a threshold has been breached.

dashboards

Dashboards are an extremely effective tool for showing a **large amount of key data at a glance**. They distill a large amount of data **into actionable insights**.

basic principles

1. **know your user** (singular)
2. choose your **dashboard type**
3. **contextually group** your data
4. ensure data is **relevant to the audience**
5. keep it **simple**
6. different dashboards need **different data refresh rates**

1

know your user.

A dashboard should be targeted to one user role.

If you try to serve >1 roles, you're doing it wrong.

Surface only that data that is useful to one role. if you have other roles that need dashboards, create specific ones for each of those other user roles.

In order to deliver the correct dashboard to the right user, think about a dashboard call based on back-end ACL mapping or have the user be able to select a role that defines the dashboard display at log in or in the ui.

[sometimes users have multiple roles, they can switch roles/dashboards using a common control]

2

choose your **dashboard type.**

There are 3 common types of dashboard, each performing a specific purpose.

operational   **strategic/executive**   **analytical**

2

choose your **dashboard type**.

These dashboards display data that **facilitate the operational side of a business**. Think of an operational dashboard as monitoring the nerve centre of your operation. Operational dashboards often require real-time or near real-time data.

For example, in a business with a website, it's important to ensure that your website remains up and running, so you would monitor server up-time and resource utilization. In a business with an inside sales function, you may want to create a dedicated sales dashboard that displays number of calls made and number of appointments booked.

operational

2

choose your **dashboard type.**

operational
example

2

choose your **dashboard type**.
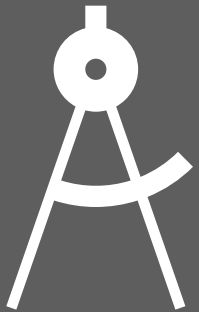
Strategic dashboards will typically provide the **KPIs (Key Performance Indicators)** that a companies executive team track on a periodic (daily, weekly or monthly basis). A strategic dashboard should provide the executive team with a high-level overview of the state of the business together with the opportunities the business faces.

strategic/ executive

2

choose your **dashboard type.**
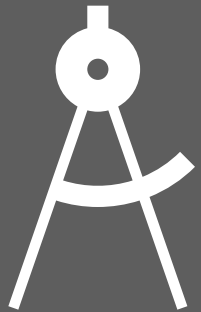
**strategic/
executive**

example

2

choose your **dashboard type**.

An analytical dashboard could display **operational or strategic data**. However, this type of dashboard **will offer drill-down functionality** - allowing the user to explore more of the data and get different insights. Often dashboards include this functionality when it is not required. Do not simply provide this functionality because you can.

Bear in mind that different user groups may require a different type of dashboard. The Supervisor may need both a Strategic and Operational view of their data. Where possible create two separate dashboards.

analytical

2

choose your **dashboard type.**

analytical

example

3
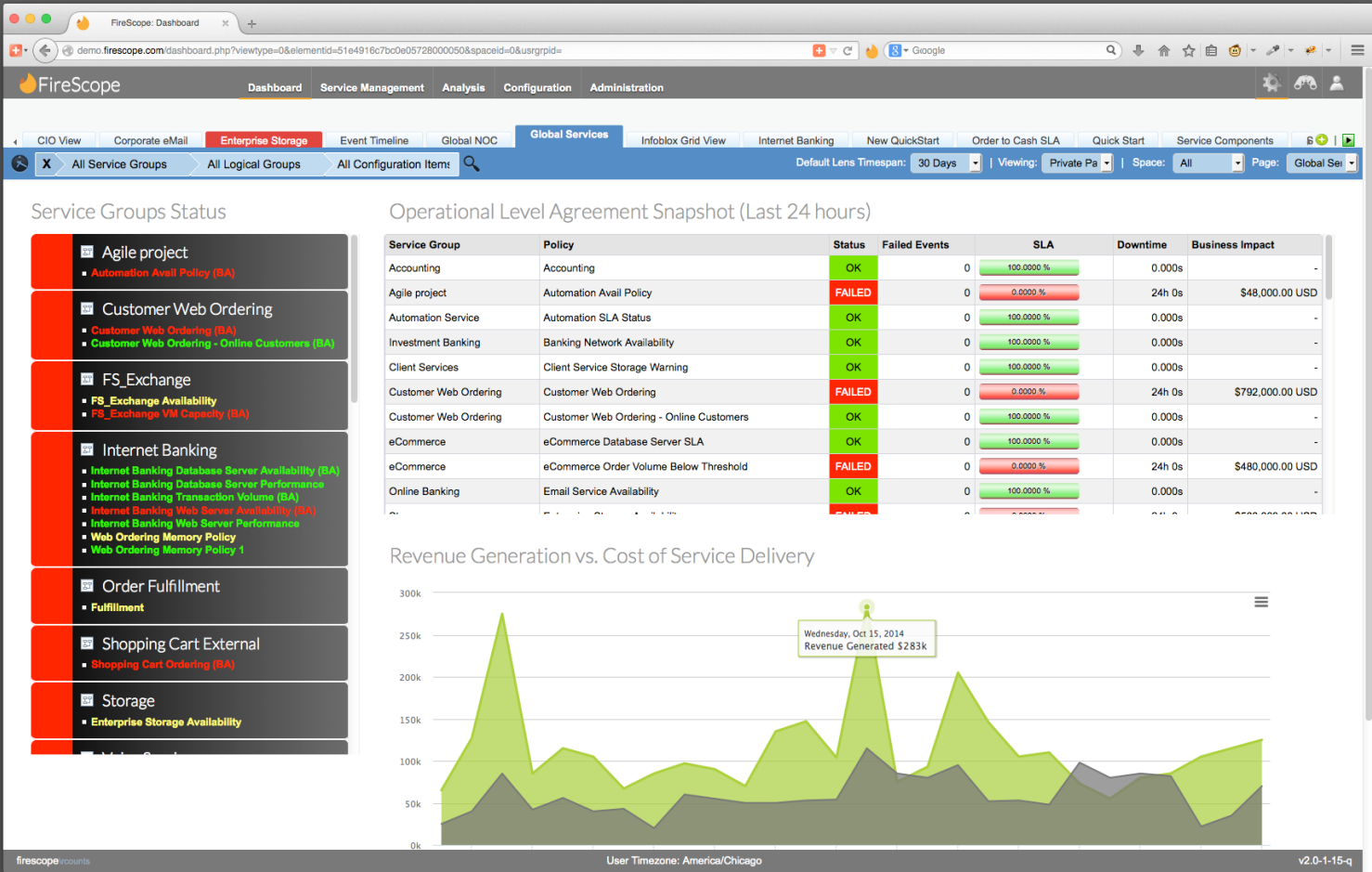
contextually group your data.

A well-designed dashboard will ensure that data is displayed in logical groups. For example, if a dashboard includes Financial KPIs and Sales Pipeline, ensure that the financial data is displayed next to each other, with the Sales Pipeline data displayed together in a separate logical group.

4

ensure data is **relevant to the audience.**

An Executive dashboard can have a number of different audiences. Ensure that the data you display is relevant to the users. Think about the scope and reach of your data; the whole company, department, individuals, suppliers

Ensure that you understand exactly who the intended audience is and the scope of their requirements. Understand that smaller companies may have overlapping roles.

5

keep it **simple**.

Don't clutter. Cluttered displays deflect the focus from the important messages. Some are cluttered with useful and relevant information and some are cluttered with useless and irrelevant information. Neither of these situations are desirable.

Each dashboard type may require different amounts of data (for example an Executive dashboard may only need 6 numbers, whereas an Operational dashboard may need upwards of 20) There is no hard and fast rule to follow here, except ensuring that everything you display is relevant and meaningful to the audience. Do not add a graph or text simply because you can.

6

different dashboards need **different data refresh rates**.

Ensuring that your data is being refreshed at the right intervals saves time during development and can ensure optimal performance for your usrs.

Refresh rates on dashboards include:

Real-time (or near real-time)

Daily, weekly, monthly

As a rule of thumb, operational dashboards require data in real-time or near real-time, whereas executive/strategic dashboards may require data refreshed on a less frequent basis.

the good, the bad, the ugly.

the good.

- simple

- clean

- good legend use

- decent color usage-would modify for accessibility

- only surfaces needful information

the good.

- simple

- clean

- colors correspond to thresholds

- excellent usage for this market

the good-ish.

- simple

- clean

- decent color usage

- black backgrounds can be difficult for daylight users (as opposed to dashboards for police in cruisers at night)
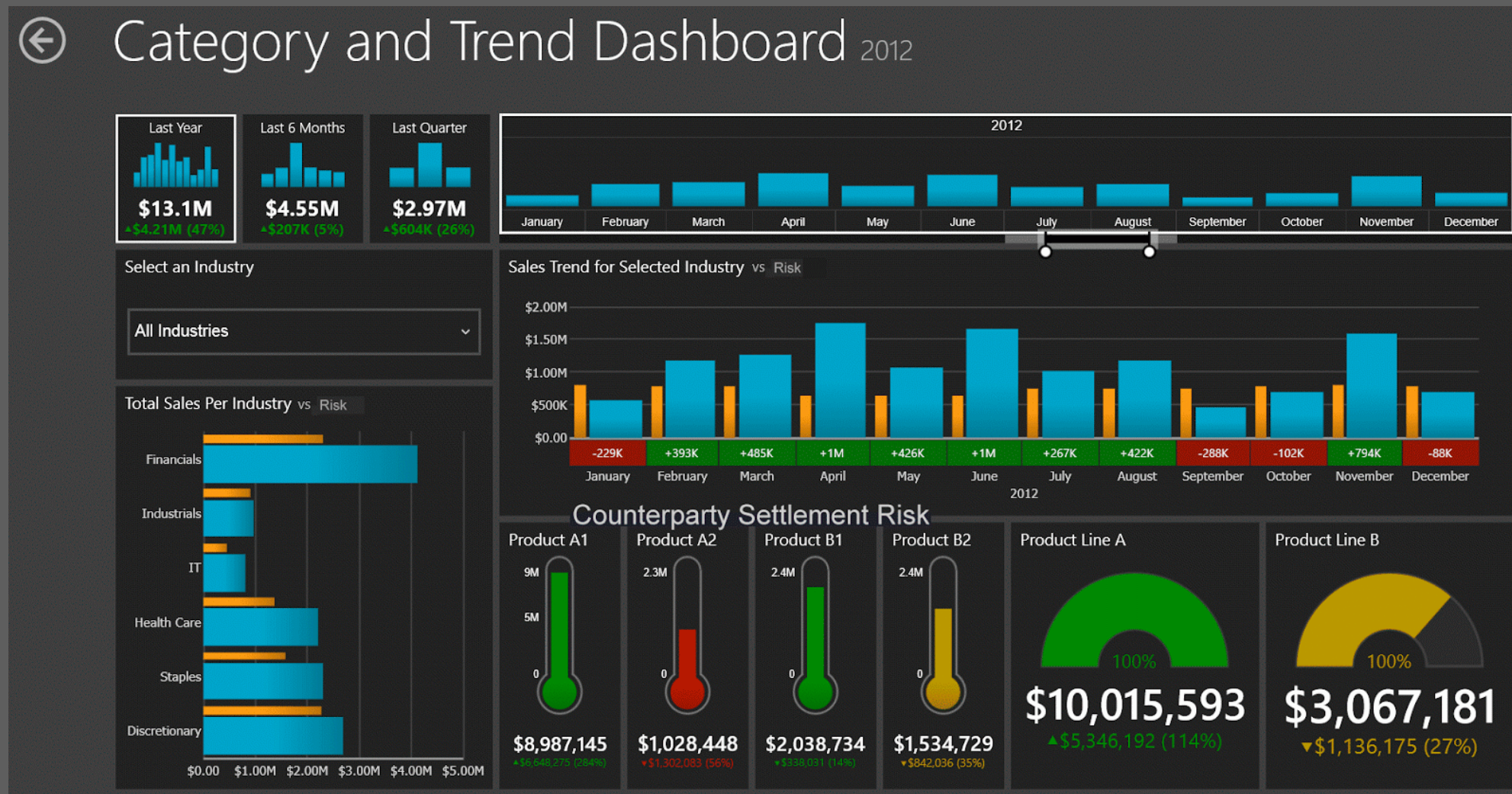
the bad.

This is tied for bad and ugly.

- legends should be simple and easy to read

- skeuomorphic design is dated and distracting

- readability is difficult

- no threshold notification
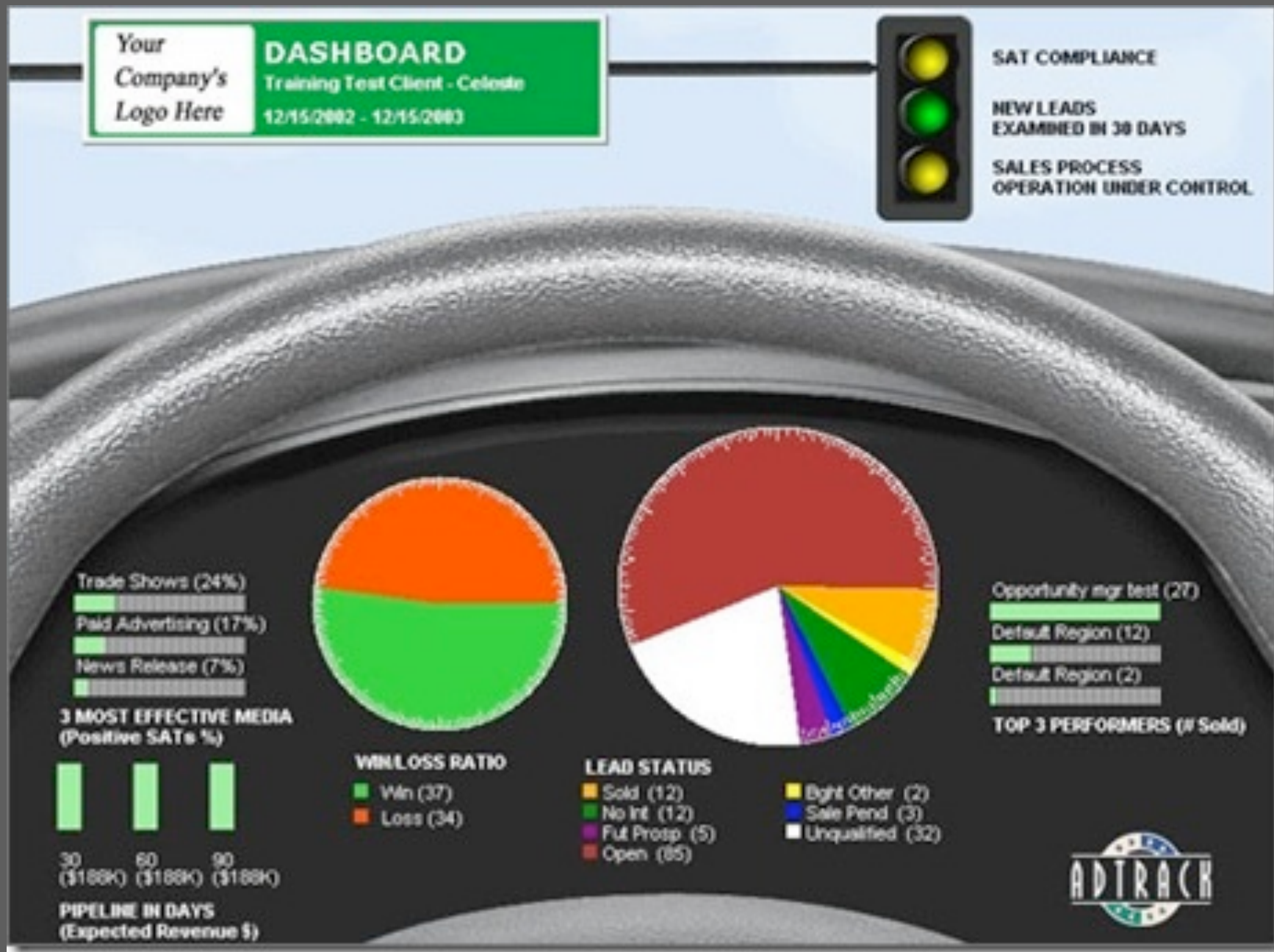
the bad.

A spreadsheet is
NOT a dashboard.

the bad.

A report is NOT a dashboard.

This is unsuccessful in every way.

• ll information is not 'glanceable.' Merely delivering data to the user is not the purpose of a dashboard. Delivering usable information is the key. This is not immediately consumable.
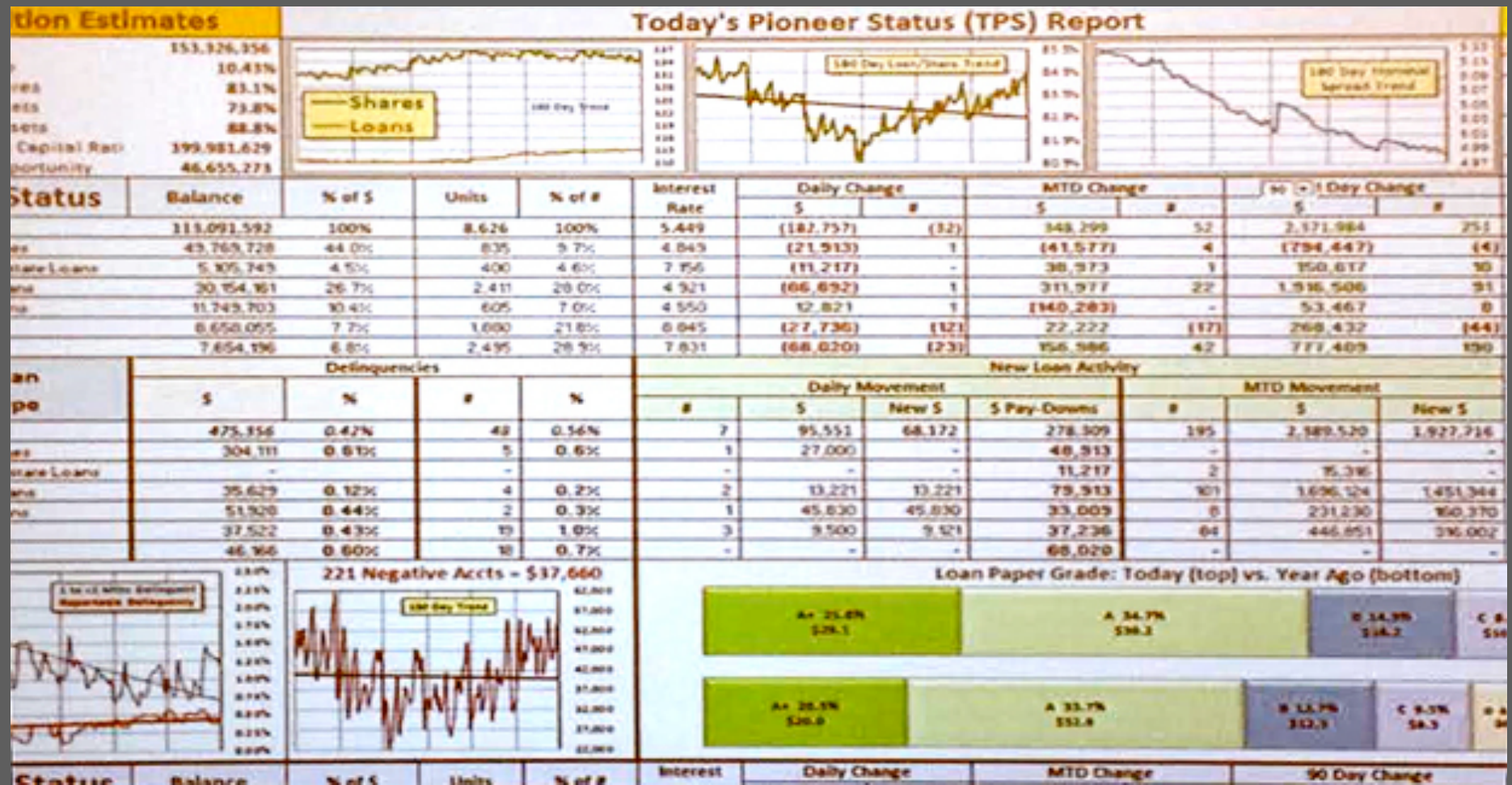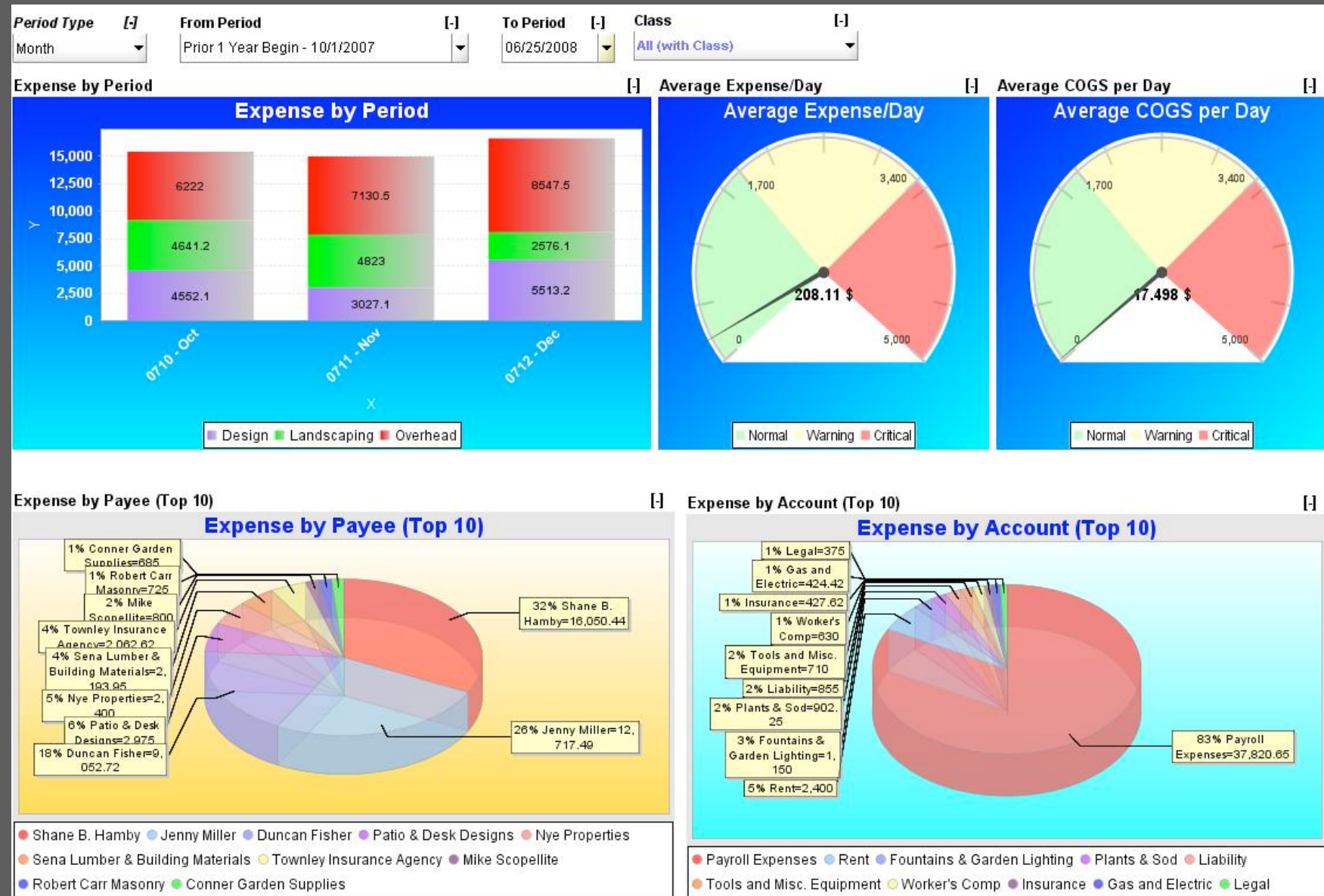
the bad.

- skeuomorphic design is dated and distracting.

- hard to read

- difficult to discern usage since the full spectrum is represented in all the scales at the bottom.

the bad.

- dimensionality is not useful when used in this manner, it is distracting and clutter.

- gradients are also not useful and are distracting

- overall design is not pleasing

Transform raw, back-end data, into **consumable information**.

Show **impact**.

Show **relation to thresholds**.

Use **color meaningfully**, not as a decoration.

Keep it as **simple** as possible.

Users need **role-based data**, grouped and visualized in a manner that is **immediately consumable**, in order to take **immediate informed actions and make crucial decisions**.