

Advertise responsibly

Arbitron's user-centered tool helps beer companies target appropriate audiences

Arbitron is an audience measurement company that specializes in the radio and cable industries. One of its specialties is collecting demographic data about radio audiences. This data is of particular interest to beer companies, since they have pledged to only advertise on radio programs where at least 70% of listeners are of legal drinking age (21 years old).

To help beer makers comply with this industry guideline, Arbitron created the “21+ Audience Composition Report.” This Web application provides a central source for beer companies and their ad agencies to evaluate the audience composition of radio stations by age group.

Challenge: cluttered data is hard to interpret

Arbitron's original Composition Report displayed audience composition for each station in a typical giant table of numbers and gridlines. Time slots that didn't meet the minimum 70% adult listener criteria were highlighted in red (see *Before* screenshot). While the information was accurate and complete, this layout made it hard for users to pick out eligible advertising opportunities at a glance. The amount of data cluttering the screen was overwhelming. Arbitron knew it could present these statistics in a way that would be more beneficial to clients.

HFI's approach: simplify and prioritize

HFI and Arbitron had already collaborated on several design projects and possessed a solid understanding of the target users for the 21+ Composition Report. Thus, the redesign began immediately with rapid prototyping and internal testing, with the intent to:

- Create a cleaner design and streamlined structure
- Emphasize the most important data
- Organize related tasks and provide greater flexibility

Within 72 hours, HFI and Arbitron created a live prototype and tested it internally. Instead of the large table of numbers, the data was now presented in an “either-or” fashion. That is, users could click a checkbox to view *either* advertising slots that were acceptable for alcohol promotion *or* those that were not (see *After* screenshot).

Since Arbitron uses Agile development methods, the new interface was implemented very quickly. The revised Composition Report was also built using AJAX technology to improve its speed, interactivity, and usability.

Benefits: information at a glance

The redesigned Composition Report was hailed as an “obvious” user-centered interface because:

- Layout follows users' task flows and highlights key data
- Tabs provide easier access to frequently viewed sections
- Standardized navigation scheme simplifies data by groups
- Live information updates do not require page refresh

One reason for the quick success of this project was the combination of Arbitron's Agile development environment and HFI's unique knowledge of how to insert user-centered design into this rapid programming methodology.

Albert Einstein wasn't referring to beer advertising, but his famous quote perfectly sums up Arbitron's 21+ Audience Composition Report: “Make it as simple as possible—but no simpler.”

Screenshots on next page...

Human Factors International helps customers design Web sites, applications, and intranets that are intuitive and easy to use. To learn how HFI can support your usability initiatives, visit www.humanfactors.com.

Before: Users had to wade through a sea of numbers to figure out which radio programs were eligible for beer advertising

Station	Mon-Fri			Mon-Fri			Mon-Fri			Mon-Fri			Mon-Fri			Mon-Fri			Mon-Fri					
	12M	1A	2A	3A	4A	5A	6A	7A	8A	9A	10A	11A	12N	1P	2P	3P	4P	5P	6P	7P	8P	9P	10P	11P
WALR-FM	91	86	93	88	100	99	100	93	98	99	99	99	99	99	98	96	98	95	95	92	96	93	86	78
WAMJ-FM	50	78	100	100	70	97	99	93	97	100	98	100	99	95	97	96	97	97	95	94	94	94	92	74
WACK-AM	100	100	100	100	100	100	100	100	100	100	100	95	90	94	98	97	97	100	94	90	93	100	100	100
WAOS-AM						100	53	70	73	75	73	72	88	65	63	58	63	100	100	100	100			100
WBTS-FM	34	32	24	39	22	60	65	64	72	77	70	71	68	69	77	61	64	64	69	54	47	41	39	46
WBZY-FM	29			25	88	88	67	78	91	82	83	77	70	68	72	78	71	72	71	47	35	50	38	
WCNN-AM	100	100				100	100	95	100	94	100	100	100	100	100	96	97	100	100	100	100	100	100	100
WFOX-FM	57	45	20		20	79	72	74	76	71	71	73	88	86	87	82	82	85	79	78	66	78	63	76
WFSH-FM	67	100	100	100	100	100	99	87	98	99	94	93	90	88	84	89	92	92	86	85	86	79	79	79
WGST-AM	38	47	40	40	100	100	100	96	98	100	100	100	99	100	100	100	100	100	100	100	100	93	79	74
WHTA-FM	30	42	42	17	24	63	63	63	73	72	75	72	70	71	75	67	67	69	66	60	58	45	49	34
WJZZ-FM	86	82	79	83	75	96	100	96	97	99	100	100	100	100	100	100	100	98	97	96	98	99	97	93
WKHX-FM	43	55	50	55	61	78	79	77	84	85	86	88	84	84	86	84	85	83	85	77	71	60	54	46
WKLS-FM	62	56	46	59	46	89	95	93	97	95	96	98	90	94	94	92	88	94	98	98	92	92	80	61
WLKQ-FM	86	100	100	100	100	93	86	60	55	61	72	60	76	56	53	60	85	90	83	78	73	71	77	63
WLTA-AM							100			100	100	100	100	100	100	80	50	33	60	100				100
WLTM-FM	100	100	100	100	100	100	98	98	100	100	98	97	97	98	98	98	97	97	98	97	93	98	97	100
WNGC-FM	67	100	100	100	100	100	100	95	100	100	97	97	100	98	95	97	92	100	100	100	100	100	75	33
WNNV-AM							100	95	97	100	100	100	100	100	100	100	100	100	100	100	100	100		
WNNX-FM	13	8	25	8	27	71	78	76	87	86	88	89	85	84	80	69	72	70	61	49	43	50	53	33
WPZE-FM	79	88	100	100	100	95	91	89	92	92	93	92	91	93	93	90	88	92	90	93	92	92	82	71
WQXI-AM	100	100				100	100	83	94	94	89	91	93	99	100	100	97	98	100	100	100	100	100	
WSB-AM	100	100	100	100	100	100	99	99	99	99	99	99	99	100	99	100	100	99	100	99	99	99	97	99
WSB-FM	82	78	79	79	72	84	89	88	95	97	95	94	94	92	93	96	86	82	88	80	81	78	83	84
WSTR-FM	80	92	90	89	82	95	90	84	90	96	95	94	90	91	92	84	85	87	80	72	64	68	37	35
WTSH-FM			8		13	63	63	82	98	95	93	96	91	100	100	100	100	100	94	100	75	100	25	9
WVEE-FM	60	54	43	37	51	83	86	85	88	92	89	91	89	89	87	88	81	82	70	70	63	59	54	56
WVJZ-FM						100	100	85	81	85	90	89	88	89	88	83	82	89	82	86	95	90	86	50
WVVA-FM									100	100	100						25							
WWAA-AM	74	70	78	100	100	100	100	96	83	78	79	76	86	83	81	79	83	61	58	67	50	58	70	67
WWVA-FM	100	100		100	90		78	78	82	83	80	77	80	78	77	86	85	79	71	74	68	78	81	85

After: HFI quickly mocked up this prototype that made it easy to see at a glance which programs were acceptable or inappropriate

The screenshot shows the Arbitron NextGen software interface. At the top, it displays the URL 'http://diuapp01.arbitron.com:24024 - Arbitron NextGen - Mozilla Firefox' and the Arbitron Custom Software logo. Below the logo, there are menu options: 'Options', 'Window', and 'Help'. The main content area is titled 'Atlanta Metro' and 'Fall 2005'. On the right side, it says 'Estimate: % of AQH Audience 21+'. There are buttons for 'Print' and 'Export to Spreadsheet'. Below these, there are tabs for 'Mon-Fri', 'Saturday', 'Sunday', and 'Standard Dayparts'. A legend indicates 'Audience: 70% Age 21+ or higher' and ' Less than 70% 21+ / No data available'. The main table shows station ratings for various time slots (12M, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12N, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11) for stations like WALR-FM, WAMJ-FM, WACK-AM, WAOS-AM, WBTS-FM, WBZY-FM, WCNN-AM, WFOX-FM, WFSH-FM, WGST-AM, WHTA-FM, WJZZ-FM, WKHX-FM, WKLS-FM, WLKQ-FM, WLTA-AM, WLTM-FM, WNGC-FM, WNNV-AM, and WNNX-FM. The ratings are color-coded: red for 'Less than 70% 21+' and black for '70% Age 21+ or higher'. At the bottom, there is a copyright notice: '© 2005 Arbitron Inc. Privacy Copyright Terms of Use Trademarks Send Feedback Customer Support'.