

APPTVATE: THE MOBILE SHOPPING TECHNOLOGY THAT ENRICHES YOUR TV-EXPERIENCE

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IN COLLABORATION WITH:



MEDIALAAN

APPTVATE TRANSFORMS YOUR TV SCREEN INTO YOUR FAVORITE SHOP

With the explosion of screens in the living room, TV as a medium has to cope with decreasing attention as viewers engage more and more in second screen activities [1]. Subsequently, brands have to cope with decreased attention both on the level of advertising and on product placement.

By enriching content with metadata, AppTVate allows content producers, broadcasters, and Telco's, among others, to combine the reach of TV with the targeting power of digital media and the revenue generation power of e-commerce. By adding metadata to television-content, the reach of TV is combined with the interactivity of digital media. The goal of this is to create a new industry, called v-commerce, that brings inspiration linked to viewers' favorite content. End-users can use their favorite mobile application (with AppTVate technology inside) to synchronize with TV-programs in order to recognize objects (e.g., clothing, food, decoration,...). These objects can be directly bought online via a linked online webstore. In others words, *their television screen has just become their favorite shop*.

AppTVate will disrupt the television market with its unique offer to bring products from TV-programs closer to the audience, however, it will never be a successful concept if the application doesn't provide its users with a good experience. To this aim, Appiness joined forces with iMinds Living Labs in order to gain insights in the expectations towards and experiences with this new technology. This resulted in a real-life pilot with three TV-programs of Medialaan and more than 250 test users involved.

The goals of the pilot were to (1) see how the technology (and UI/UX) performs in terms of enjoyment, ease of use and usefulness; (2) investigate if pre-usage expectations match post-usage experiences; (3) estimate the adoption potential; (4) find favorite features of the application; (5) investigate how the technology influences the TV-experience; (6) reveal the potential of the technology for marketers and (7) gain insights in the specific types of end-users of this technology.

LARGE SCALE FIELD TRIAL INVESTIGATES END-USERS' EXPERIENCES WITH APPTVATE

In collaboration with Mediaaan, iMinds Living Labs and Research Group for Media and ICT (MICT) of Ghent University, Appiness engaged to evaluate their technology using a Living Lab approach [2]. Such an approach, based upon real-life testing and active user involvement, consisted of a mix of both qualitative and quantitative user research methods. The Living Lab approach allows to analyze the experiences with the AppTVate technology on a large scale basis with real end-users. An overview of this research process, which was conducted during the last 3 months of 2015, is shown in Figure 1.

Before the actual field trial, the application was optimized based on the feedback of 12 usability testers. After this iteration, a first iOS version of the AppTVate technology was made available via TestFlight [3] and a large scale field trial was set up. The participants were recruited from a panel of iMinds test users and Mediaaan viewers. They were asked to test the technology during three program tests, i.e., multiple interactive episodes of TV-programs (a cooking program, a Flemish soap and an American Sitcom) broadcasted on a TV-channel of Mediaaan.

Participants that wished to join the study were asked to fill in an online survey as an intake procedure for the field trial. In total, 507 respondents completed the intake survey, 388 of them could join the field trial because they had an iOS mobile device (iPhone, iPod Touch or iPad). Eventually, 254 test users installed the AppTVate application. This attrition, i.e., the drop out of test users, was in most cases caused by the cumbersome process of downloading AppTVate via TestFlight, as reported by the majority of interested participants that didn't install the application.

After each program test, participants were invited to report on their experiences in a short online evaluation survey. 91; 71 and 78 participants responded to the evaluation surveys after respectively the first, second and third program test.

As an addition to the evaluation surveys, 2 co-creation sessions were organized after the first and second program test. These small group discussions (N=7 and N=6 respectively) with test users focused on the delights and frustrations with the technology. The goal of these sessions was to gain more in-depth and qualitative insights on aspects related to the UI/UX and the performance of the technology.

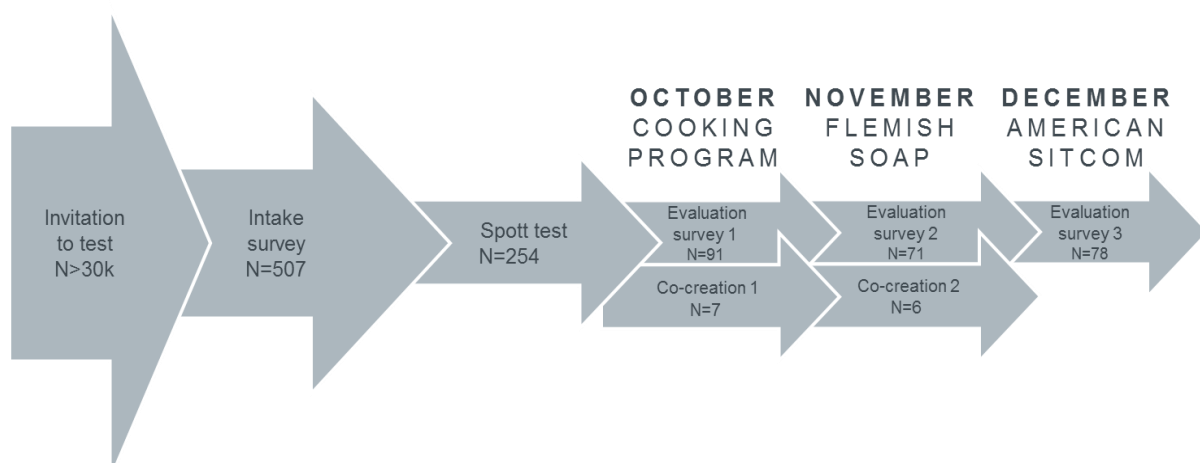


Fig. 1. Overview of field trial methodology with 3 program tests (Oct – Dec 2015)

RESULTS

1. HIGH ENJOYMENT, EASE OF USE AND USEFULNESS OF THE APPTVATE TECHNOLOGY

As shown in Figure 2, the intake survey revealed that test users had very high expectations towards the technology. Of all respondents, 91,5% expected the application to be fun to use, 90,2% easy to use and 91,4% useful. A positive evolution in the test users' experiences can be noticed throughout the 3 program tests: the longer the application is used, the better the experiences. After 3 program tests, 89,0%, 92,9% and 96,1% of test users referred to the experience as fun to use, easy to use and useful.

The high scores on the UX statements can be (partly) explained by some motivations of the test users:

- 82,3% (evaluation survey 1) said that it is clearly organized
- 91,1% (evaluation survey 1) indicated that the goal of the application is clear to them
- 82,3% (evaluation survey 1) and 84,4% (evaluation survey 3) says that synchronizing with TV-content, goes fluently
- There was an overall satisfaction with the technology reported by the participants of co-creation 1 and 2: "the application works really well and works as expected", "It really satisfies my need to know where I can buy the clothes worn by my favorite actors, and with this technology, I can buy them online at once!"

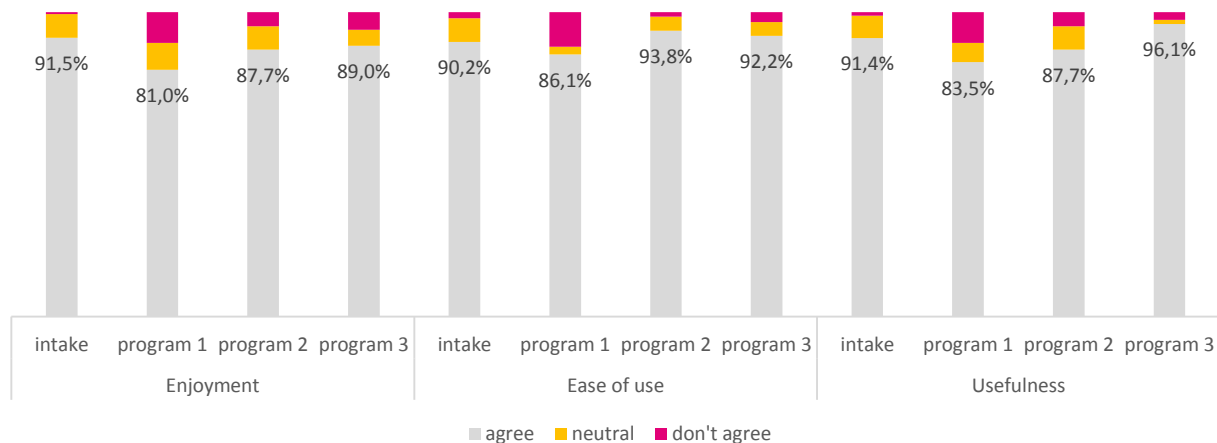


Fig. 2. Evolution of expectations (intake) into experiences (program 1;2;3)

2. APPLICATION EXPECTATIONS MATCH EXPERIENCES

After the 3 program tests, sequentially 55,7%; 61,5% and 75,3% of test users reported that their experience with the application was (much) better than expected. Moreover, respectively 72,1%; 78,5% and 90,9% of test users rated the app as (very) positive, i.e., good or excellent. We found a strong positive correlation (Pearson $cor = .687$; sign $p = 0,01$) between the expectations and experiences of test users.

| | Cooking program (N=91) | Flemish soap (N=71) | American Sitcom (N=78) |
|--|---------------------------|------------------------|---------------------------|
| EXPECTATIONS | | | |
| Much better than expected | 7,6% | 13,8% | 16,9% |
| Better than expected | 48,1% | 47,7% | 58,4% |
| As expected | 29,1% | 23,1% | 16,9% |
| Worse than expected | 11,4% | 15,4% | 7,8% |
| Much worse than expected | 3,8% | 0,0% | 0,0% |
| EXPERIENCES | | | |
| Excellent | 13,9% | 15,4% | 14,3% |
| Good | 58,2% | 63,1% | 76,6% |
| Fair | 17,7% | 15,4% | 6,5% |
| Poor | 7,6% | 6,2% | 2,6% |
| Bad | 2,5% | 0,0% | 0,0% |
| Pearson correlation (sign. p=0,01) between expectations and experiences | 0,766 | 0,757 | 0,687 |

Table 1. Reported expectations and experiences with AppTVate

3. HIGH ADOPTION POTENTIAL OF THE TECHNOLOGY

In Figure 3, we notice a high adoption potential for the technology, i.e., a higher potential than the theoretical curve of Rogers [4]. Although it is expected that participants of the study are more interested in the application and will therefore be more willing to use the application in the future, we cannot deny that the estimated adoption potential of test users after testing is still high. This means that a large proportion of participants is still interested in using the application after testing it.

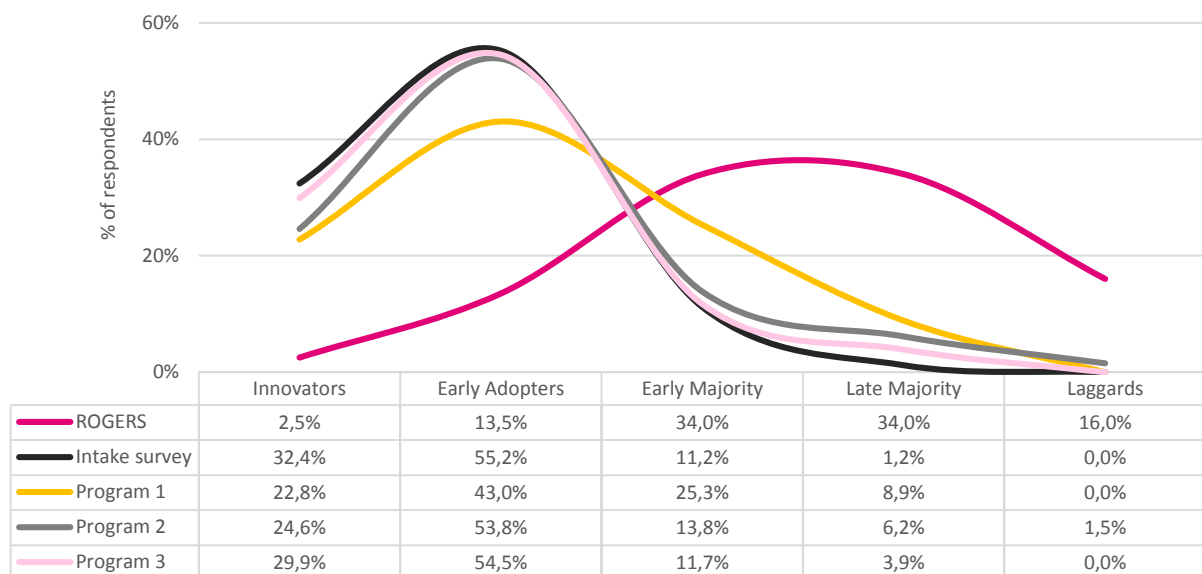


Fig. 3. Adoption potential estimation of the AppTVate technology

4. WISH LIST, SYNCHRONIZING AND BUYING ITEMS: THE TOP FEATURES OF THE APPLICATION

In Figure 4, we list the features of the application according to how interesting they are for the test users (evaluation survey 3). The wish list (88,3%), synchronizing (83,1%) and buying items with the app (77,9%) are the most favorite features. In the second co-creation, it became clear that most features of the app are related with positive emotions (i.e., in terms of arousal and pleasantness). The features that seemed least popular were sponsored advertising and liking products since this is almost similar to adding products in their wish list.

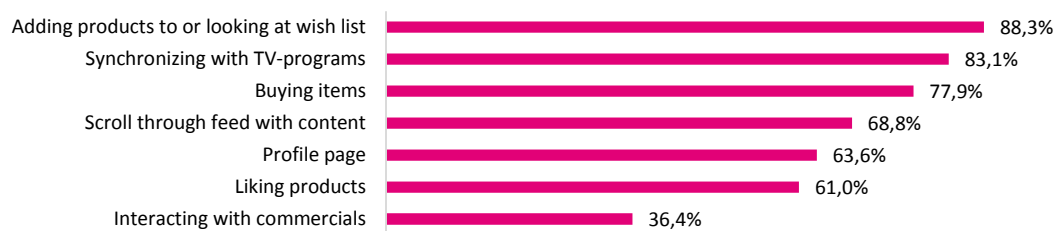


Fig. 4. Ranking of features of AppTVate on level of interest

5. THE TECHNOLOGY AND THE APPLICATION PROVIDE AN ENRICHING TV-EXPERIENCE TO FREQUENT WATCHERS OF TV-PROGRAMS

Test users that already watch the TV-programs frequently are more likely to be Innovators or Early Adopters of the application. For example, 76,5% of test users that watch the cooking program weekly or more are Innovators or Early Adopters while only 47,6% of test users that never watch the cooking program see themselves as Innovators or Early Adopters of the application (See Table 2.). In most cases, users that already watched the interactive programs reported to have better (i.e., good or excellent) experiences and are more likely to have their expectations confirmed. After the second program test, test users that never watched the Flemish soap reported to have better experiences (82,1%) than those who watch the soap weekly or more (76,7%), however, these percentages do not differ significantly ($p > 0,10$).

Whether AppTVate will provide an enriching TV-experience to all users is not clear: 45,6% (evaluation survey 1) say AppTVate distracts them from watching TV, 8,9% is neutral and 45,6% say it will not distract them from watching TV. From the first co-creation, we can conclude that there probably will be two types of AppTVate users: people who see AppTVate as an added value during TV-programs (i.e., where the focus of the program is less on the plot such as a fashion and lifestyle program) and people who see AppTVate as disturbing (especially during programs where people will focus on the plot such as a drama film). In this regard, the third evaluation survey revealed that 22,1% would only use it after a program, 33,8% would use it during the program and 44,2% said that they would do both. Disregarding the fact that some users would or wouldn't use it during specific types of TV-programs, the first and third evaluation survey revealed that 64,6% and 70,1% of respondents believe that AppTVate is inspiring. 51,9% (evaluation survey 3) even indicated that they feel more involved with a TV-program when they use AppTVate, while 15,6% doesn't agree with this and 32,5% remains neutral. Moreover, 90,9% (evaluation survey 3) would like to indicate which programs are interesting to use with AppTVate.

| COOKING PROGRAM | | | | |
|-------------------|----------|---------------------|---------------|--------------|
| Viewing frequency | % sample | % good/excellent UX | % INN - % EA | % Exp. conf. |
| Weekly or more | 21,5% | 82,4% | 41,2% - 35,3% | 70,6% |
| Less than weekly | 51,9% | 73,2% | 17,1% - 53,7% | 53,6% |
| Never | 26,6% | 61,9% | 19,0% - 28,6% | 47,6% |
| FLEMISH SOAP | | | | |
| Viewing frequency | % sample | % good/excellent UX | % INN - % EA | % Exp. conf. |
| Weekly or more | 46,2% | 76,7% | 33,3% - 53,3% | 83,3% |
| Less than weekly | 10,8% | 71,4% | 28,6% - 28,6% | 85,7% |
| Never | 43,1% | 82,1% | 14,3% - 60,7% | 85,7% |
| AMERICAN SITCOM | | | | |
| Viewing frequency | % sample | % good/excellent UX | % INN - % EA | % Exp. conf. |
| Weekly or more | 28,9% | 100,0% | 36,4% - 63,6% | 100,0% |
| Less than weekly | 47,4% | 88,9% | 38,9% - 50,0% | 88,9% |
| Never | 23,7% | 88,9% | 33,3% - 44,4% | 88,9% |

Table 2. Profiling of respondents based on viewing frequency of TV-program

6. THE APPTVATE TECHNOLOGY UNVEILS UNTAPPED POTENTIAL FOR MARKETEERS

57,1% (evaluation survey 3) indicated that the AppTVate technology encourages them to buy items. 6,7% (17 out of 254 test users) already bought an item with AppTVate during the field trial.

The top 3 reasons for not buying any products with the application (evaluation survey 3) were: the items are too expensive (34,6%), I didn't like the products (24,4%) and I don't want to buy products with the application (24,5%). With regards to the fact that some test users found the items too expensive, 83,1% said that they would like to be able to choose between multiple web shops to buy items and 75,3% would like to get offered alternative, look-a-like items that are comparable with those seen on TV.

As can be seen in Table 3, test users indicated that they were interested in buying program-related items with the application. Kitchen accessories (59,5%) scores the highest in the cooking program while casual clothing is most popular in the Flemish soap (71,8%) and the American sitcom (63,2%).

Besides during TV-programs, the application would also be used during commercial breaks. 36,4% (evaluation survey 3) indicated that they would actively synchronize with commercials. The highest interest goes to receiving a reduction coupon (90,9%), receiving a sample (85,7%), joining a contest (77,9%) and receive more information on a product or service (71,4%). However, from the second co-creation, it became clear that synchronizing with commercials was not very intuitive and that awareness should be created (e.g., by showing a logo of the application during the commercial). On the other hand, we believe that the active sync will make the users feel more in charge: of the test users that indicated they did sync with the commercials (17 test users in evaluation survey 2), only 11,3% said these this was annoying while 31,3% of the test users said that sponsored ads in the feed of the application were annoying.

| Cooking Program | | Flemish Soap | | American Sitcom | |
|---------------------|----------------------|--------------------|----------------------|--------------------|----------------------|
| Item | % interest in buying | Item | % interest in buying | Item | % interest in buying |
| Kitchen accessories | 59,5% | Casual clothing | 71,8% | Casual clothing | 63,2% |
| Casual clothing | 39,2% | Accessories | 50,7% | Electronic Gadgets | 47,4% |
| Decoration | 38,0% | Decoration | 38,0% | Accessories | 44,7% |
| Food | 36,7% | Shoes | 36,6% | Decoration | 34,2% |
| Accessories | 34,2% | Electronic gadgets | 22,5% | Shoes | 21,1% |

Table 3. Interest in buying items with AppTVate for each TV-program

7. PROFILES OF THE TEST USERS

Based on the estimated adoption potential after three program tests and on the information received from these test users during the field trial, we were able to compose 3 profiles of potential users of the technology (See Table 4.).

The Innovators are the youngest and mostly female segment, a large proportion of them are still studying and living with their parents. They have a high daily TV-viewing frequency and their favorite program to synchronize with was the Flemish Soap. They think the technology is very inspiring and commercial, and they want to buy products with the application and get information on products. They feel more involved with a program when they use the application, which will most likely take place during and after the TV-program

The Early Adopters are an older segment and with less females than the innovators. This higher educated group is most likely to be single or living with partner and children. They have a medium high TV-viewing frequency and their favorite program to interact with was the cooking program. They think the application is inspiring, and just like the innovators, they want to buy products with the application and get information on products. They also feel involved with a program when they use the application, which will most likely take place during the TV-program

The Later Adopters are the oldest and mostly male segment. This higher educated group is most likely to be single or living with partner and children. They have a low TV-viewing frequency and their favorite programs to interact with were the cooking program and the American Sitcom. For them, the application is somewhat commercial but not really inspiring, they want to get information on products but they are less likely to buy items with the application. If they use the application, it will be most likely after a TV-program.

| | | Innovators (29,7%) | Early Adopters (52,7%) | Later Adopters (17,6%) |
|----------------|---|-----------------------|---------------------------|---------------------------|
| Gender | % female | 72,7% | 66,7% | 46,2% |
| | % male | 27,3% | 33,3% | 53,8% |
| Age | Avg. (years) | 24,9 | 30,0 | 32,0 |
| Household | % Single (with children) | 13,6% | 15,4% | 15,4% |
| | % Living with partner (and children) | 22,7% | 46,2% | 53,8% |
| | % Living with parent(s) | 54,5% | 35,9% | 30,8% |
| | % Living with others | 9,1% | 2,6% | 0% |
| Education | Primary | 4,5% | 0,0% | 7,7% |
| | Secondary | 59,1% | 43,6% | 30,8% |
| | Higher | 36,4% | 56,7% | 61,5% |
| TV-viewing | % Daily watching | 72,7% | 53,8% | 7,7% |
| | % Weekly watching | 22,7% | 33,3% | 69,2% |
| Attitudes | Higher involvement with TV-programs (mean score on 5) | 3,73 | 3,51 | 2,67 |
| | AppTVate is inspiring (mean score on 5) | 4,23 | 3,97 | 2,67 |
| | AppTVate is commercial (mean score on 5) | 3,68 | 3,49 | 3 |
| | I want to buy items with AppTVate (mean score on 5) | 4,05 | 3,74 | 2,92 |
| AppTVate usage | % during program | 27,3% | 43,6% | 16,7% |
| | % after program | 9,1% | 20,5% | 58,3% |
| | % during and after program | 63,6% | 35,9% | 25% |

Table 4. segmentation and profiling of test users based on respondents of evaluation survey 3

CONCLUSIONS

From this field trial, it can be concluded that AppTVate satisfies the end-user's need of finding and buying products that appear in TV-programs. With high levels of perceived enjoyment, ease of use and usefulness, the technology lives up to the expectations of test users. It provides a very positive user experience, both on an application level (with wish list, synchronizing with TV-programs and buying items as top features) as on a contextual level (with a promised enriched TV-experience). In this regard, the technology promises to unveil an untapped potential of product placement for marketers, which will open new opportunities to target the different users of the application. Users for whom *their television screen has just become their favorite shop*.

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ABOUT THE PARTNERS

iMinds Living Labs (www.iminds.be/en/livinglabs) is a leading organization in the European Network of Living Labs (ENoLL), drawing upon a state-of-the-art living lab toolbox that consists of scientifically validated R&D methods.

Appiness (www.appiness.mobi) is a European start up working on an innovation that will transform the way audiences interact with video and tv content by making TV content & ads shoppable, actionable & interactive.

Medialaan (www.medialaan.be) is a Flemish embedded multimedia company active in radio, television and interactive media. Through strong media brands, Medialaan brings fresh creative entertainment and quality information to the public, at all relevant media platforms.

BBDO Belgium (www.bbdo.be) is a top 3 communication group, employing 250 professionals. They cater to the most contemporary communication needs. BBDO Belgium is famous for its proven effectiveness track record.