

# Supplementary Topic Results for Paper Entitled “Causal Impact Analysis for App Releases in Google Play”

William Martin, Federica Sarro and Mark Harman  
 University College London, London, United Kingdom  
 {w.martin, f.sarro, mark.harman}@ucl.ac.uk

July 29, 2016

This report shares supplementary topic results for the FSE’16 paper entitled “Causal Impact Analysis for App Releases in Google Play”.

Table 1: RQ4.1 supplementary: 10 topics. Top release text terms from the most prevalent topic in each group. Common terms found in multiple topics are removed for comparison: new, app, game, play, free

<b>Type</b>	<b>Overall</b>	<b>Apps</b>	14,592
Non-significant	level world friend	<b>Target releases</b>	26,339
Significant	level world friend	<b>Release text</b>	20,014
<b>Metric</b>	<b>All</b>	<b>+ve</b>	<b>-ve</b>
R	level world friend	level world friend	device android support
N	device android support	device android support	
NW	level world friend	level world friend	app find search
$R \cap NW$	level world friend	level world friend	app find search

Table 2: RQ4.1 supplementary: 20 topics. Top release text terms from the most prevalent topic in each group. Common terms found in multiple topics are removed for comparison: new, app, game, play, free

<b>Type</b>	<b>Overall</b>	<b>Apps</b>	14,592
Non-significant	fix bug improvement	<b>Target releases</b>	26,339
Significant	fix bug improvement	<b>Release text</b>	20,014
<b>Metric</b>	<b>All</b>	<b>+ve</b>	<b>-ve</b>
R	fix bug improvement	world battle level	fix bug improvement
N	fix bug improvement	fix bug improvement	
NW	world battle level	world battle level	map app city
$R \cap NW$	world battle level	world battle level	get friend make

Table 3: RQ4.1 supplementary: 50 topics. Top release text terms from the most prevalent topic in each group. Common terms found in multiple topics are removed for comparison: new, app, game, play, free

<b>Type</b>	<b>Overall</b>	<b>Apps</b>	14,592
Non-significant	fix bug improvement	<b>Target releases</b>	26,339
Significant	fix bug improvement	<b>Release text</b>	20,014
<b>Metric</b>	<b>All</b>	<b>+ve</b>	<b>-ve</b>
R	battle hero world	battle hero world	battle hero world
N	fix bug improvement	fix bug improvement	
NW	battle hero world	battle hero world	usg tip local
$R \cap NW$	battle hero world	account mobile card	usg tip local

Table 4: RQ4.1 supplementary: 100 topics. Top release text terms from the most prevalent topic in each group. Common terms found in multiple topics are removed for comparison: new, app, game, play, free

<b>Type</b>	<b>Overall</b>	<b>Apps</b>	14,592
Non-significant	mode challenge friend	<b>Target releases</b>	26,339
Significant	hero monster battle	<b>Release text</b>	20,014
<b>Metric</b>	<b>All</b>	<b>+ve</b>	<b>-ve</b>
R	hero monster battle	wallpaper live christmas	account mobile card
N	wallpaper live christmas	wallpaper live christmas	
NW	tip local city	hero monster battle	tip local city
$R \cap NW$	wallpaper live christmas	account mobile card	hero monster battle

Table 5: RQ4.1 supplementary: 200 topics. Top release text terms from the most prevalent topic in each group. Common terms found in multiple topics are removed for comparison: new, app, game, play, free

<b>Type</b>	<b>Overall</b>	<b>Apps</b>	14,592
Non-significant	kid child learn	<b>Target releases</b>	26,339
Significant	battle war hero	<b>Release text</b>	20,014
<b>Metric</b>	<b>All</b>	<b>+ve</b>	<b>-ve</b>
R	battle war hero	battle war hero	battle war hero
N	kid child learn	kid child learn	
NW	tip local guide	account mobile card	tip local guide
$R \cap NW$	tip local guide	battle war hero	tip local guide

Table 6: RQ4.1 supplementary: 500 topics. Top release text terms from the most prevalent topic in each group. Common terms found in multiple topics are removed for comparison: new, app, game, play, free

<b>Type</b>	<b>Overall</b>	<b>Apps</b>	14,592
Non-significant	kid child fun	<b>Target releases</b>	26,339
Significant	account card mobile	<b>Release text</b>	20,014
<b>Metric</b>	<b>All</b>	<b>+ve</b>	<b>-ve</b>
R	account card mobile	account card mobile	rpg character dungeon
N	local city tip	local city tip	
NW	local city tip	account card mobile	local city tip
$R \cap NW$	local city tip	account card mobile	local city tip

Table 7: RQ4.1 supplementary: 1000 topics. Top release text terms from the most prevalent topic in each group. Common terms found in multiple topics are removed for comparison: new, app, game, play, free

<b>Type</b>	<b>Overall</b>	<b>Apps</b>	14,592
Non-significant	friend challenge world	<b>Target releases</b>	26,339
Significant	friend challenge world	<b>Release text</b>	20,014
<b>Metric</b>	<b>All</b>	<b>+ve</b>	<b>-ve</b>
R	friend challenge world	friend challenge world	battle hero player
N	local tip city	local tip city	
NW	local tip city	account mobile card	local tip city
$R \cap NW$	local tip city	account mobile card	local tip city