Supplementary material

Appendix

Table 1. Messages extracted from Facebook pages containing the term 'Brexit' in their title or description.

	All	Period-specific data subset
posts	84 578	204
comments	1 038 733	1671
replies	278 007	654

Table 2. Social actor categories involved in setting up Facebook pages containing the term 'Brexit' in their title or description.

Social actors	Categories	Examples
GROUPS (102 PAGES TOTAL)	location-based activist groups and local communities	brexit-supporting group for Milton Keynes
		people of the Grantham & Stamford constituency supporting leaving the EU
		Warwick-based Brexit campaigners
		Reading-based Brexit campaigners
		residents from Bracknell campaigning to leave
		Chesterfield & North East Derbyshire Brexit Group campaigning for leave
		student-run Cambridge pro-leave campaign
		Lancaster students for Brexit
		Leave voters from Scotland
	politically-affiliated groups	Labour Members Against Brexit
		Labour Against Brexit
		Scottish labour against brexit
		UKIP party in York
	nationality-based groups	Polish community in Scotland
		Polish nationals in the uk
		international community in Hickory
		Asian & Commonwealth citizens
		European non british nationals
		British National in France
	professionally & institutionally affiliated groups	economists for brexit
		Brexitpreneurs (entrepreneurs willing to launch their enterprises around the time of Brexit)
		academics organising a brexit-related seminars series

		Brexit - musical band
	groups with other common social attributes	Women for Brexit
		Students against Brexit
		Students from Manchester University
	news website and blog authors	London School of Economics blog
		Brexit Money (news website focused on the economic impact of Brexit)
		Brexit Alliance (brexit Information Hub website set up by a think-tank)
		Farm Brexit (news website focused on monitoring the impact of Brexit on agriculture)
	non-profit and non-governmental organisations	Wales GO - NGO providing a case for Wales to leave
		Bollox to Brexit - non-profit organisation supporting ani-Brexit campaigns, protest groups and political parties
	group centered around projects and initiatives	Filmmakers; e.g. "Brexit the movie", "Divided Kingdom Brexit Documentary",
		Smart Brexit - movement campaigning to ensure secure jobs, fully funded NHS and fair immigration system after brexit
		Brexit negotiations simulation game run by MUN (Canada), the University of Surrey (UK) and Keele University (UK)
	commercial companies	sales: clothes, alcoholic and non-alcoholic beverages, e.g. Brexitovka
		consulting, legal and business advice; e.g. BREXIT Assistance
INDIVITUALS (28 PAGES TOTAL)	Blog author	for example: Brexit Border Blog
	Book authors	example book: "Brexit - The Great British Break Off"
	Film director and producer	brexit short film
	Activist	Brexit Book Club- aiming to inspire meaningful debate
	Economic Analyst	German economic analyst from a trading network
	Photographer	linked to the photography project concerned with post-Brexit Britain

Table 3. Languages used in posts, comments and replies extracted Facebook pages containing the term 'Brexit' in their title or description.

Language	Number of pages
english	194
italian	6
german	3
polish	2
dutch	1
french	1
greek	1
italian/english	1
romanian	1

Table 4. The Brexit Facebooksphere: social actors, motivations for setting up the pages and sentiment.

Page category	Total pages	Social actor	Number	Sentiment	Number
Campaigning	67	individual	5	remain	20
		group	39	leave	42
		unidentified	23	neutral	5
News	52	individual	7	remain	6
		group	28	leave	4
		unidentified	17	neutral	42
Branding	28	individual	4	remain	2
		group	22	leave	7
		unidentified	2	neutral	19
Project	24	individual	3	remain	5
		group	18	leave	2
		unidentified	4	neutral	18
Forum	22	individual	5	remain	5
		group	4	leave	3
		unidentified	13	neutral	14
Humour	16	individual	4	remain	8
		group	2	leave	4
		unidentified	10	neutral	4

Table 5. Examples of different kinds of pages containing the term 'Brexit' in their title or description, categorised based on the motivation for their set up. We include the metadata based on which the classification was developed.

Category	Title of the page	Relevant metadata
Campaigning	No Brexit UK	**About:** "Campaigning for the UK to remain in the EU by blocking Brexit via democratic and legal means"
News	Brexit Alliance	**About:** "Hub for valuable information about Brexit"
Branding	Brexit Promotions	**About:** "Placards, Tee Shirts, Magnetic Car Posters, Bumper Stickers, Window Decal and much more to show your support for the BREXIT marches, rallies and protests."
Project	Brexitsim	**About:** "This is the Facebook page for the joint simulation game run by MUN (Canada), the University of Surrey (UK) and Keele University (UK) in autumn 2016"
Forum	Discuss Brexit	**Description**: "The goal of this page is to provide a place on Facebook where we can all debate and argue our points"
Humour	Anti Brexit Cartoons	**About:** "Original cartoons and humour against Brexit."

Table 6. Topics of the Brexit Facebooksphere.

Topic No.	Label	20 terms with highest value
		Topics of the Brexit Facebooksphere
1	UK Stakeholders	Person, government, country, money, law, comment, right, parliament, party, scotland, decision, immigrant, pay, rule, course, cameron, matter, leave, hate, power
2	Ambiguous	Country, way, person, nothing, thank, point, day, reason, everyone, argument, war, politician, england, house, group, freedom, week, guy, kind, answer
3	Economy	World, something, change, trade, economy, trump, business, someone, labour, need, place, friend, market, power, mind, trade_deal, set, take, industry, pound
4	Pre-referendum evaluation: costs and benefits	Country, hope, racist, benefit, member, state, rest, end, debate, mate, cost, company, head, tax, please, help, care, research, talk, worker
5	The referendum voting process	Brexit, one, voting, support, result, truth, remainer, ukip, election, union, example, referendum_term, single_market, mps, bill, terrorist, regulation, spot, self, poll
6	Negotiations with the EU	Time, year, part, deal, get, issue, see, english, https_www, citizen, chance, number, term, thought, brussel, brexiteer, fight, idiot, information, facebook_com
7	Pre-referendum evaluation: evidence and statistics	Europe, think, fact, job, remain, germany, news, voter, bit, migrant, medium, try, mean, religion, call, reality, line, crap, evidence, move
8	Mobility of people	Immigration, future, use, control, london, turkey, nobody, stuff, holiday, exit, british, turn, mention, gain, net, good_luck, great_britain, young_people, son, dave
9	The political aftermath of the referendum	Vote, referendum, http_www, majority, article, uk_news, view, policy, shame, trust, watch, nigel_farage, wish, theresa_may, response, independence, voted_leave, html, look, faith
10	Social welfare	Life, britain, woman, child, idea, question, family, hand, german, france, million, nhs, school, generation, bbc, dictatorship, option, half, brexiter, sure
11	Otherness and (in)security	Lot, work, man, opinion, side, other, muslim, page, today, respect, doubt, army, shame, land, trouble, list, risk, brit, project, hour
12	Post-referendum situation and sentiments	Nation, plan, tory, case, stay, campaign, choice, system, shit, show, area, sort, share, statement, leaver, john, remember, fear, difference, situation
13	Politicians	Thing, democracy, post, anyone, everything, politic, farage,

		campaigning for Leave	love, position, interest, favour, service, boris, value, facebook, paper, car, twat, tariff, public
14	International relations		Problem, anything, home, history, figure, leave_voter, islam, greece, peace, propaganda, check, america, com, wage, paul, corbyn, organisation, guess, yep, lady
15	Global politics and post-referendum protests		Word, kid, remoaner, lord, russia, isis, club, david_cameron, merkel, individual, sir, mortgage, poster, daughter, growth, protest, anybody, terrorism, establishment, planet

Table 7. Topics of the subset of Facebooksphere containing period-specific keywords.

Topics of the sub-set containing period-specific keywords		
Topic No	**Label**	**20 terms with highest value**
1	Cultural tension	Country, person, blood, time, fight, britannia, stop, halal_meat, year, cruelty, eec, someone, work, corbyn, europe, u_k, referendum, people, barbarian, brexit
2	Migration issues	Word, thing, country, child, person, muslim, english, argument, reason, sense, labour, language, brexiter, remainer, act, need, latin, race, migrants_issue, help_neighbour
3	Migratory regulation	Law, country, europe, time, person, muslim, status, hatred, work, european, brexit, ship, thier, evidence, money, kill, bias, freedom, sturgeon, birth"
4	Origins	Country, law, year, person, way, britain, france, food, dna, tribe, parent, child, slave, king, roman, history, church, england, order, anglo_saxon
5	Law and order, and cultural tension	Language, rape, please, rule, course, english, great_britain, law, field, way, shame, level, word, speaking, country, german, decision, islamisation, england, year
6	Identity	Culture, england, person, english, country, roman, norman, part, scotland, island, celt, world, jews, time, other, nothing, land, shit, family, money
7	Migration	Person, country, way, germany, immigrant, invader, place, result, voter, tradition, lot, vote, anybody, debate, world, mine, foot, price, today, german
8	International politics and security	Woman, meat, person, shall_slave, britain, way, country, god, girl, talk, denmark, community, anything, list, china, house, death, isis, century, gun
9	Social issues and threats	Person, name, terrorist, thought, celt, thing, value, way, education, nhs, bastard, hatred, mr_cameron, war, turkey, telling_us, comes_across, bit, evil, crusade
10	Nationalism	Time, nation, hell, person, country, world, way, share, righ, nazi,

		example, scum, thing, system, muslim, behaviour, period, state, day, post
11	UK politics and stakeholders	Government, person, lack_lustre, cameron, rule_wave, thank, migrant, year, country, method, hope, want, prime_minister, position, world, roman, pal, follower, meaning, flag
12	Mobility and the make-up of Britain	Scotland, country, barbarian, saxon, muslim, use, wall, point, money, empire, ancestor, immigrant, world, pound, sharium, start, year, hadrian, building, medium
13	Voting for leave	Person, europe, world, time, year, fact, way, vote_leave, country, something, money, banana, party, life, one, israel, anglo_saxon, britain, guess, vote
14	British pride and the empire	Rule_britannia, roman, country, wave, day, nothing, law, trade, i_think, rule, problem, europe, empire, job, house, rome, youtube_com, set, wall, century
15	Cultural and religious tension	Ed_u, vote, law, person, country, rome, racist, world, year, life, rule_britannia, sharia_law, halal, anyone, everyone, throat, rule, day, middle_age, war
16	Scotland and Brexit	Wall, england, viking, scot, government, lot, person, brexit, border, world, english, take, majority, britannia_rule, market, scotland, page, mate, religion, team
17	Religion and beliefs: Islam and Christianity	Islam, europe, man, religion, faith, muslim, ideology, citizen, camp, roman_empire, type, class, society, nothing, country, brexit, life, christian, try belief
18	Culture and customs	Animal, way, slaughter, history, culture, democracy, briton, roman, custom, lady, book, think, britain, time, invasion, mayor, nation, age, country, chimp
19	Referendum (ambiguous)	Religion, brexit, britannia, day, europe, group, country, kid, angle, referendum, mind, world, house, thing, name, eating, doubt, leave, time, kingdom
20	Ambiguous	Man, barbarism, barbaric_way, britain, culture, country, muslim_country, region, elite, person, remain, time, david_cameron, money, spirit, trouble, commonwealth, https_www, brexit, facebook_com
21	Freedom, security and control	Day, war, time, the_problem, country, year, freedom, nothing, barbarian, union, soldier, world, population, comment, van, self, corruption, society, internet, control

Table 8. Term frequencies calculated for the subset of posts, comments and replies extracted from Brexit-focused Facebook pages and containing period specific keywords.

Recurring 300 times

europ, law, live, world, leav, nation, time, wall, roman, countri, peopl, rule, brexit, british, vote, barbar, britain, britannia
Recurring 200 times
islam, right, come, england, english, scotland, govern, year, remain, day, stop, european, hadrian, muslim
Recurring 100 times
life, man, power, religion, rome, system, act, empir, money, pay, problem, referendum, stand, unit, support, french, name, state, trade, stay, union, chang, histori, war, culture, foreign, reason, work, border, franc, land, mediev, control, real, word, fight, believe, cameron, free, immigr, independ, polit, anim, slaughter, hope, old, norman, age, racist, german, ban

Table 9. Term associations calculated for relevant terms recurring 300 times (0.30> coefficient), as shown in Table 8.

roman
ecbritain, kelt, unclog, xenofobia, rude, ecgreat, later, northwest, bretagn, inferior, jute, occupi, larg, habit, island, counti, background, soldier, conquer, discirmin, brit, racism, although, cathol, defend, victori, armi, real, coloni, english, part, logic, wale, argument, went, main
britannia
rule, wavers matchless, stroke, slave, azur, dread, arous, briton, blast, crownd, genres, shall, charter, blest, haughti, majest, muse, neer, oak, shalt, thou, woe, thee, ever, bend, tame, repair, thi, never, envi, command, renown, coast, flame, strain, angel, heaven, guardian, sand, sky, flourish, tear, loud, guard, circl, happi, fall, isl, rural, thine, beauti, main, shine, nativ