Using Process Mapping to Analyze Workflows in Technical Services

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Today's presentation:

- What is process mapping?
- How do I create a process map?
- How did we use this technique?

Technical Services at AU

- Three Units: Acquisitions, Cataloging, Electronic Resources Management
- 4 FTE Librarian Managers, 15 FTE staff
- Collections Budget: \$5.2 million
- Collection size: over 400 databases and aggregators, 800,000 print titles, 350,000 ebooks purchased via various programs, 90,000 ejournals, 2,000 print journal titles
- Members of Washington Research Libraries Consortium (WRLC)

It's complicated:

- We use every acquisitions vehicle available:
- Firm orders, subscriptions, standing orders
- DDA/PDA, Print on demand
- Approval plans for print, e-preferred approval plan
- Leased ebooks, purchased ebooks
- Streaming media, DVDs
- Big deals, aggregator packages, publisher packages
- Consortial purchasing, consortial borrowing
- Cataloging has 25 individual workflows

Challenges for Technical Services

- Are we working as efficiently as possible?
 - How do things work?
 - Are we organized appropriately?
 - Are our workflows efficient?

- Departmental move to offsite location Fall, 2016
 - How can we explain why we need more space?

What is business process mapping?

- A graphic representation of processes
- A structural analysis of a process flow
- Holistic review of a system
- Exposes problems

Why process mapping?

- Makes the work and the work architecture visible
- Understanding of work of others
- Improve communication
- Present work activities in context
- Create a common understanding of the flow
- Clarify assumptions
- Identify and clarify the output
- Improve the process

Type of process map: Flowchart

- Graphic representation of series of actions
- Represents a portion of a larger process
- Distinguish between valuable actions and wasteful actions
- Makes waste visible

Getting started

- Define source or starting point
- Define output or ending point
- Define symbols to represent actions, handoffs, decisions

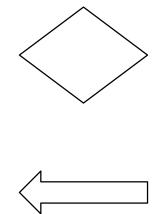
Symbols Used

- Terminator: start and end points in a process—can only have one input and one output.
- Process step: a specific step in the process—Must have one input and one or more outputs

 Pre-defined process: a step which consolidates a complex, multi-step process

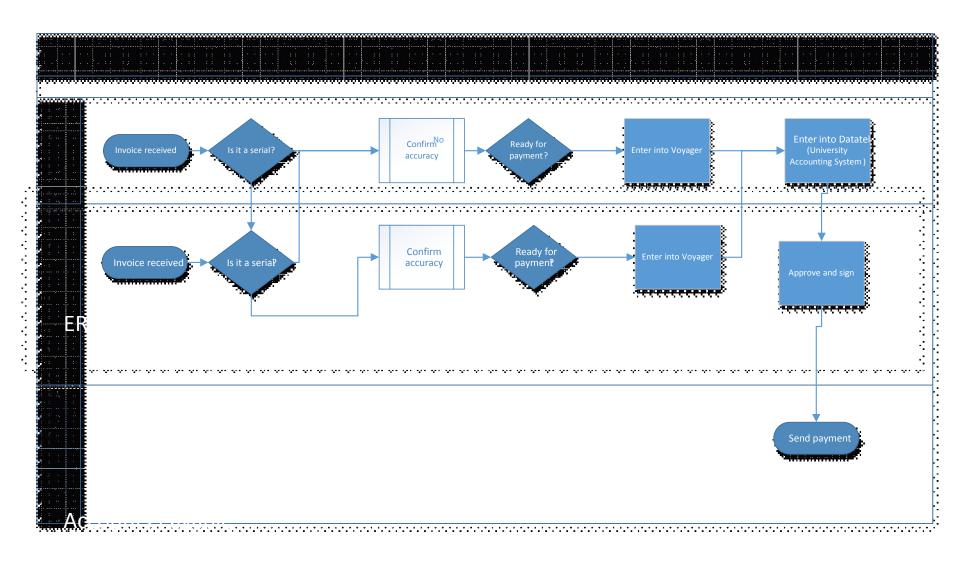
Symbols used (con't)

- Decision point: a branching in the process flow. Must have one input and one output for each possible decision outcome
- Process flow: a directed arrow that specifies the process sequence
- Functional bands (swim lanes): show which departments, units or functional roles are associated with different parts of the process





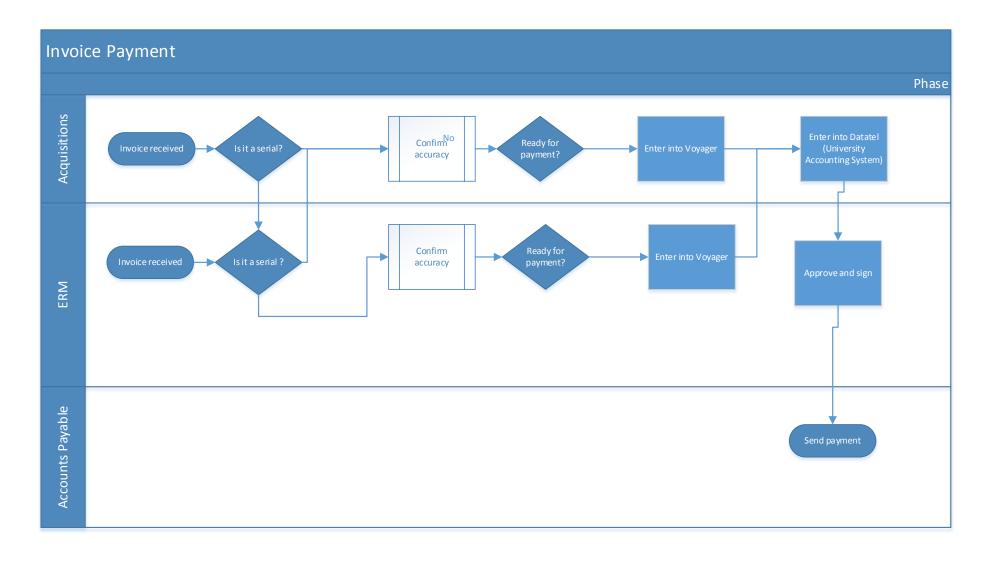
Initial invoice payment workflow



Cross-functional or swim lane diagram

- Illustrates workflow between people or functional groups
- Shows where the work takes place
- Illustrates hand-offs
- Identifies patterns in the workflow

Initial invoice payment workflow

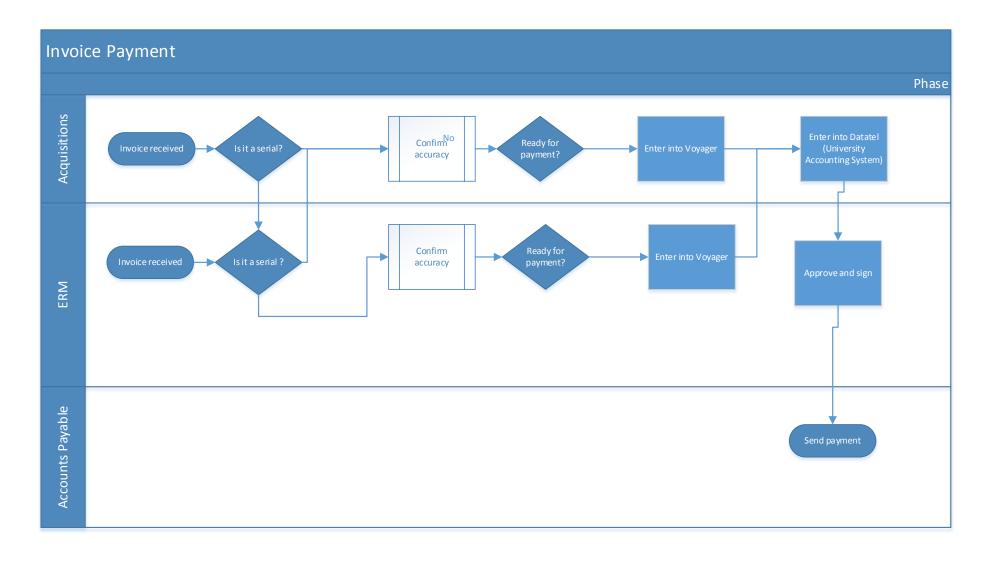


Types of waste

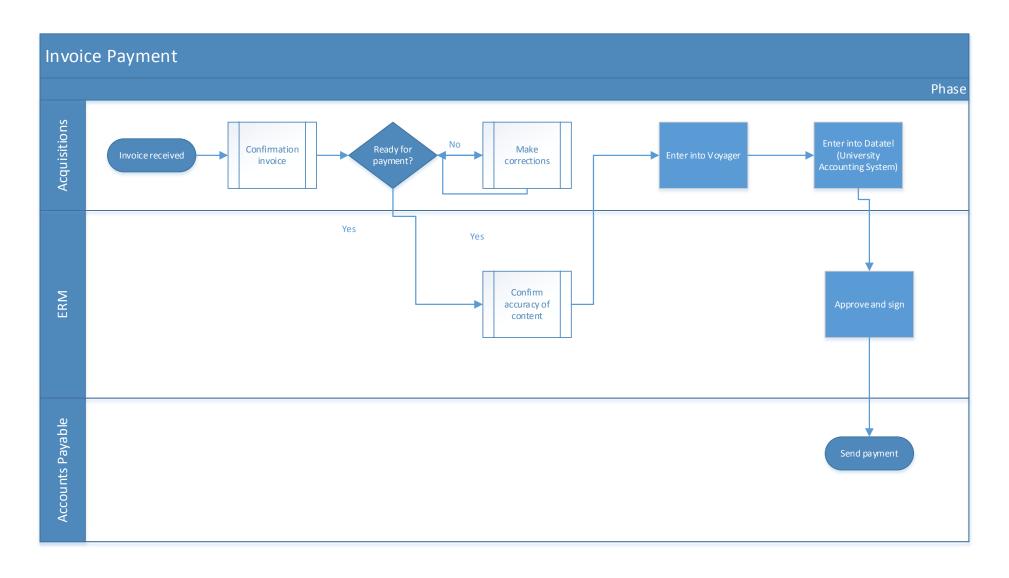
- Overproducing
- Inventory
- Waiting
- Extra processing
- Correction
- Excess motion
- Transportation

Damiel, Robert. The Basics of Process Mapping, 2nd edition. CRC Press: NY 2011

Initial invoice payment workflow



Revised invoice payment workflow

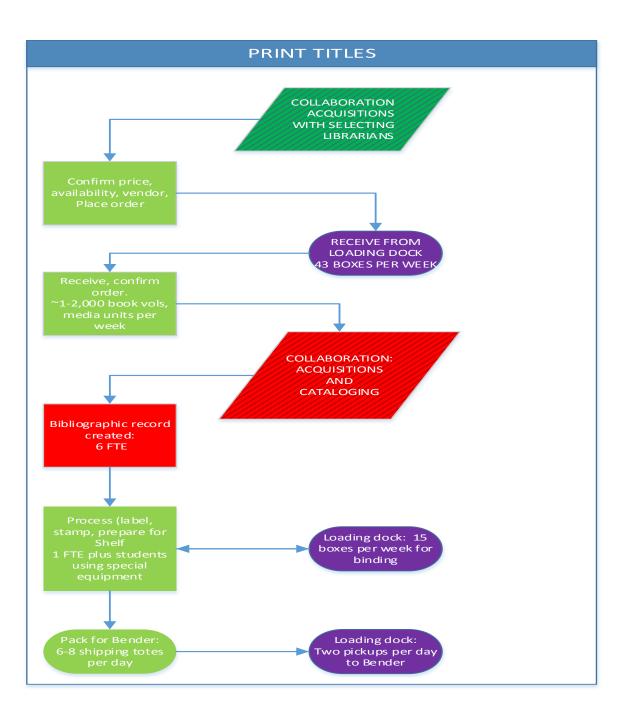


Visualizing workflows for space planning

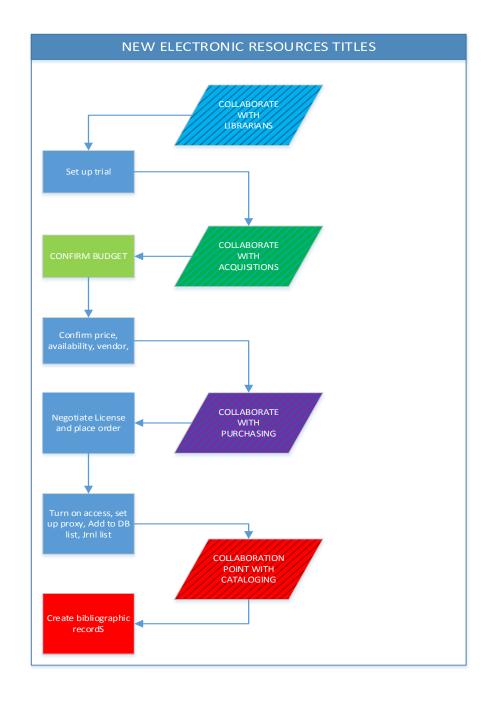
Needed to represent how people use space to complete their work

- Colors to represent different departments:
 - Green—Acquisitions
 - Red—Cataloging
 - Blue-ERM
 - Striped—points of collaboration

Purchasing new print monographs



Purchasing new databases



What did we learn?

- We can always improve our processes
- Lack of shared understanding of our work and our goals
- Importance of context
- It's not easy
- Depersonalizes change

Most important

, about, above, across, act, active, activity, auu, arraiu, atter, agair, age, ago, agree, air, air, arone, along, arready, arways, arri, arrour n, and, angry, another, answer, any, anyone, anything, anytime, appear, apple, are, area, arm, army, around, arrive, art, as, ask, at, ttack, aunt, autumn, away. baby, base, back, bad, bag, ball, bank, basket, bath, be, bean, bear, beautiful, beer, bed, bedroom, behave, efore, begin, behind, bell, below, besides, best, better, between, big, bird, birth, birthday, bit, bite, black, bleed, block, blood, blow, blue oard, boat, body, boil, bone, book, border, born, borrow, both, bottle, bottom, bowl, box, boy, branch, brave, bread, breakfast, reathe, bridge, bright, bring, brother, brown, brush, build, burn, business, bus, busy, but, buy, by, cake, call, can, candle, cap, car, car are, careful, careless, carry, case, cat, catch, central, century, certain, chair, chance, change, chase, cheap, cheese, chicken, child, hildren, chocolate, choice, choose, circle, city, class, clever, clean, clear, climb, clock, cloth, clothes, cloud, cloudy, close, coffee, oat, coin, cold, collect, colour, comb, comfortable, common, compare, come, complete, computer, condition, continue, control, cook, ool, copper, corn, corner, correct, cost, contain, count, country, course, cover, crash, cross, cry, cup, cupboard, cut. dance, angerous, dark, daughter, day, dead, decide, decrease, deep, deer, depend, desk, destroy, develop, die, different, difficult, dinner, irection, dirty, discover, dish, direction, do, dog, door, double, down, draw, dream, dress, drink, drive, drop, dry, duck, dust, duty. each ar, early, earn, earth, east, easy, eat, education, effect, egg, eight, either, electric, elephant, else, empty, end, enemy, enjoy, enough, nter, equal, entrance, escape, even, evening, event, ever, every, everyone, exact, everybody, examination, example, except, excited, xercise, expect, expensive, explain, extremely, eye, face, fact, fail, fall, false, family, famous, far, farm, father, fast, fat, fault, fear, ed, feel, female, fever, few, fight, fill, film, find, fine, finger, finish, fire, first, fit, five, fix, flag, flat, float, floor, flour, flower, fly, fold, foor oil, foot, football, for, force, foreign, forest, forget, forgive, fork, form, fox, four, free, freedom, freeze, fresh, friendly, from, front uit, full, fun, funny, furniture, further, future. game, garden, gate, general, gentleman, get, gift, give, glad, glass, go, goat, god, gold, ood, goodbye, grandfather, grandmother, grass, grave, great, green, grey, ground, group, grow, gun. hair, half, hall, hammer, hand, appen, happy, hard, hat, hate, have, he, head, healthy, hear, heavy, hello, help, heart, heaven, height, help, hen, her, here, hers, hide, igh, hill, him, his, hit, hobby, hold, hole, holiday, home, hope, horse, hospital, hot, hotel, house, how, hundred, hungry, hour, hurry, usband, hurt. I, ice, idea, if, poortant increase, inside, into introduce, inventored, invite, is, taland, it, its, jelly, job, join, juice, imp, just, keep, key, kill, kir Aing, The Inne know older very and large last, late, lately, laugh, lazy, lear af, learn, leave, leg, left, lend, longth, less local briefle brany in life, light, tke on lipselit, listen, little, live, lock, lonely, long pen, opposite, or, orange, order, other, our, out, outside, over, own. page, pain, pain, pair, pan, paper, parent, park, part, partner, part ass, past, path, pay, peace, pen, pencil, people, pepper, per, perfect, period, person, petrol, photograph, piano, pick, picture, piece, pic in, pink, place, plane, plant, plastic, plate, play, please, pleased, plenty, pocket, point, poison, police, polite, pool, poor, popular, osition, possible, potato, pour, power, present, press, pretty, prevent, price, prince, prison, private, prize, probably, problem, produce, romise, proper, protect, provide, public, pull, punish, pupil, push, put. queen, question, quiet, quiet, quite, radio, rain, rainy, raise, reac ad, ready, real, really, receive, record, red, remember, remind, remove, rent, repair, repeat, reply, report, rest, restaurant, result, eturn, rice, rich, ride, right, ring, rise, road, rob, rock, room, round, rubber, rude, rule, ruler, run, rush, sad, safe, sail, salt, same, sand, ave, say, school, science, scissors, search, seat, second, see, seem, sell, send, sentence, serve, seven, several, sex, shade, shador hake, shape, share, sharp, she, sheep, sheet, shelf, shine, ship, shirt, shoe, shoot, shop, short, should, shoulder, shout, show, sick, ide, signal, silence, silly, silver, similar, simple, single, since, sing, sink, sister, sit, six, size, skill, skin, skirt, sky, sleep, slip, slow, moke, small, smell, smile, smoke, snow, so, soap, sock, soft, some, someone, something, sometimes, son, soon, sorry, sound, soup, outh, space, speak, special, speed, spell, spend, spoon, sport, spread, spring, square, stamp, stand, star, start, station, stay, steal, team, step, still, stomach, stone, stop, store, storm, story, strange, street, strong, structure, student, study, stupid, subject, substance uccessful, such, sudden, sugar, suitable, summer, sun, support, sure, surprise, sweet, swim, sword, table, talk, talk, talk, talk axi, tea, teach, team, tear, telephone, television, tell, ten, tennis, terrible, test, than, that, the, their, then, there, therefore, these, thick, in, thing, think, third, this, though, threat, three, tidy, tie, title, to, today, toe, together, tomorrow, tonight, too, tool, tooth, top, total, auch, town, train, tram, travel, tree, trouble, true, trust, twice, try, turn, type, uncle, under, understand, unit, until, up, use, useful, usual sually, vegetable, very, village, voice, visit, wait, wake, walk, want, warm, wash, waste, watch, water, way, we, weak, wear, weather, redding, week, weight, welcome, well, west, wet, what, wheel, when, where, which, while, white, who, why, wide, wife, wild, will, win, rind, window, wine, winter, wire, wise, wish, with, without, woman, wonder, word, work, world, worry, worst, write, wrong, year, yes, actorday yet you young your zoro

Questions?

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