

Multiview Rectification of Folded Documents: Additional results

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Data I



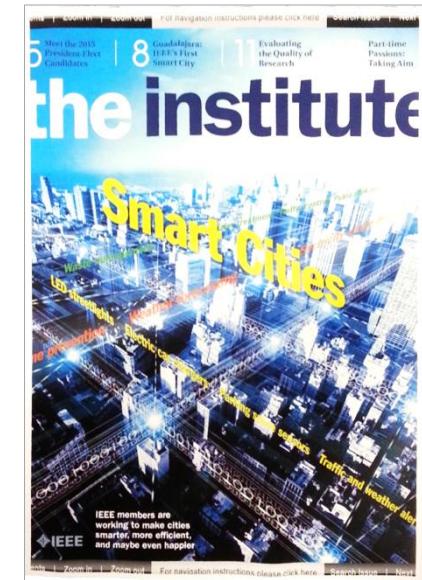
Input



RA(Ours) + L1(Ours)



RA(Ours) + Geo



RA(Ours) + L2

Abbreviations:

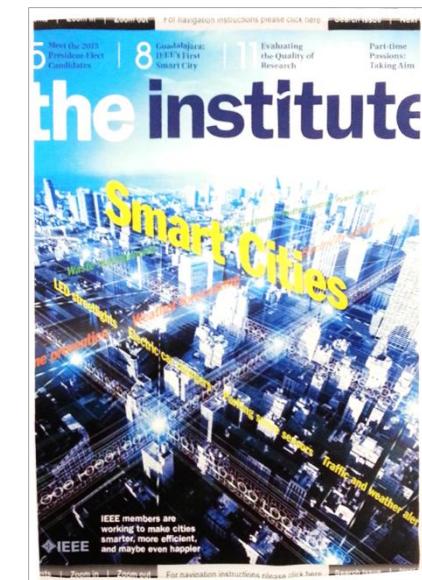
- RA: Ridge-aware reconstruction (proposed)
- Po: Poisson reconstruction
- L1: L1 conformal mapping (proposed)
- Geo: Geodesic unwrapping (Zhang08)
- L2: LSCM (Brown 07)



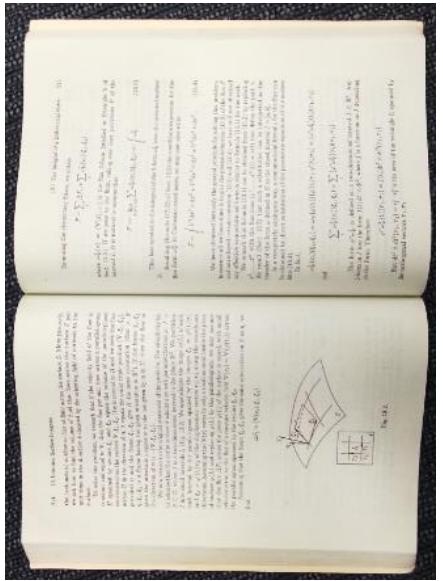
Po + L1(Ours)



Po + Geo



Po + L2



Input

RA(Ours) + L1(Ours)

RA(Ours) + Geo

RA(Ours) + L2

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Data III

Input

RA(Ours) + L1(Ours)

Δ (Ours) + Geo

RA(Ours) + L2

Po + L1(Ours)

Po + L2

My Friend Plympton Hall near Exe 19 Sep 1835
Received your letter of July 13rd and to which being in my 80^e, and nearly blind and therefore indisposed I have been unable to show by — thank you sincerely for the sympathetic & enlarged sympathy you afford me in it, which I have had with the sons of the last generation. They have lost the nature which guided them in this cruel unmerciful attack upon us; but it is a pleasure to me to inform you no son has had my public enemies to them come out greater. A soldier is born public enemies dedicated to character and yet how divided you are, though they wished to injure my character. Truly forgive them. So do because you particularise my own life when I have not done so. It is a pleasure to us, to cherish an memory that was all against the children of discord and heretics, and who were palpable soldiers in the said cause of liberty & law, and evil for we live in our heart —
comes me, indeed the ultimate, when I think that things have to us such a strong influence over you part of the world. The first of these soldiers at least have done and themselves such as the most barbarous beaten nations of antiquity never thought of — these slaves, who they have been called in this apostle assembly by Jesus (black today) the gospel who have been admitted to the confederacy. On whom when he has deserted his religion principles! But this is not all, for as I tell there are thousands, and many thousands even in the Northern states would have expected a virtuous race of men who defend slavery. It is com-
mon that you should protest, as I am pleased to hear you have done, again horrible invasion of man an eight, this attempt to destroy the intellectual & moral nobility of man, this war against all the principles of the gospel, less will be included in these awful and heavy judgments of God, which must come or later, when the heads of your various neighbours who are not so bold & deliberate, such monstrous & horridly go long ungodly, as the creature, he stands in equal relationship to all, whether they be black or white, or whether they be bond or free. This protest ought to be, if can be done universally as possible, in those of the northern states of the Union, that they are clear of the guilt, when the day of retribution shall come —
mine will be sure to do this my God help me. Holy Spirit in the rig-
or of duty covers our injured and oppressed fellow creatures of the same
man family as ourselves
your friend Thomas Cartwright

My Friend
Received your letter of July 13rd and to which being in my pos-
session, and nearly blind and therefore indisposed I have honorably tried to answer
it - Thank you sincerely for the sympathy you express on account of the
tragedy (presuming you allude to it) which I have had with the sons of the late
W. W. Howes - They have lost their father, and I have given them in their cruel
unconventional attack upon me, but we are, however, far from being cast down in this great
misfortune - no son has had my public enemies to this extent, and I have been compelled to give up
from public bodies, dedicated my character, and my services to defend your
country, though they wished to injure my character. Still I have given them to be
deceived by me, particularly in my conduct when I was in the service of the
Confederacy, and when I have been compelled to do so, I have done it with a
desire to do no violence, and whose independence I have always held dear in my heart -
I love, and will for ever live in my heart - I have given them that things have been so strong
in my favor, indeed my afflictions, when I consider that things have been so strong
in your favor part of the world - The pride of their nation, who have done so much to
us, such as the most barbarous nation, and of course they must have thought of
over their slaves, and this has been a great effort on their part to attack us, by means
(black treason) of the gospel who have lost themselves in the confederacy, &
then when he has deserted his religious principles! But this is not all, for I
find that there are thousands, and many thousands even in the northern states
who would have expected a creature once of man, who denys Jesus. So it is com-
mon that you should protest, as I am pleased, to hear your brethren, against
the horrible invasion of human rights; this attempt to destroy the noble and
humble family of man, this war against all the principles of the gospel, and
will be included in those awful and heavy judgments of God, which must
occur at a later time, after the heads of your neighbors, who will not go to
hell desirably, such monstrous beings as go along unrepentant, easily
the creatures, he stands in equal relation to all, whether they be black or
white, or whether they be bond or free. This protest ought to be fit can be on
universally as possible, in these of the northern states of the Union, that they
are clear of the guilty, when the day of retribution shall come -
I will not bid adieu, when you may be gathered to your heavenly home in the rig-
or of death, forever, over yesterdays and ages hence creatures of the same
same family as ourselves
Your friend Thomas Garrison

Data IV



Input



RA(Ours) + L1(Ours)



RA(Ours) + Geo



RA(Ours) + L2



Po + L1(Ours)

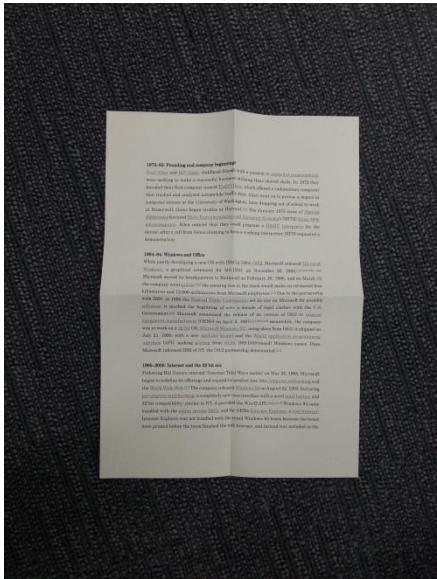


Po + Geo



Po + L2

Data V



Input

RA(Ours) + L1(Ours)



Po + L1(Ours)

1972-83 Founding and company beginning

Paul Allen and Bill Gates, childhood friends with a passion for computer programming, began working together at the University of Washington in Seattle. They founded their first company, *Micro-Soft*, which offered a revolutionary service that tracked and analyzed automobile traffic data. After went on to pursue a degree in computer science at the University of Washington, later dropping out of school to work at *Hayesville* (later *Gateway*) at *Microsoft*. The January 1975 issue of *Popular Electronics* featured *Micro-Soft's* *Intercomputer Terminal System* (GITS). *GITS* was a microcomputer. Allen noted that they could program in *BASIC* language for the device after a cold start times claiming to have a working interpreter. *MTTS* remained a demonstration.

1984-94 Windows and Office

While nearly developing a *PC* with *IBM* in 1984 (*MS-DOS*), Microsoft released *Microsoft Windows*, a graphical extension for *MS-DOS*, on November 20, 1985. *Windows* moved its headquarters to Redmond on February 26, 1986 and on March 14 the company was born.¹⁰ The earning power of the stock would make an investment from Microsoft worth \$100 million. Microsoft moved from *Microsoft* to *Microsoft Corporation* with *IBM* in 1990. The company was forced to change its name due to possible infringement it marked the beginning of over a decade of legal battles with the U.S. Government.¹¹ Microsoft announced the release of the version of *OS/2* to original equipment manufacturers (OEMs) on April 2, 1987.¹² In 1990, the company was at work on a 32-bit OS, *Microsoft Windows*. Using code since 1982 it shipped on July 21, 1993, with a new user interface and the *World Wide Web* presentation. *Microsoft Internet Explorer* made its debut in 1995. *OS/2* was discontinued in 1998. Microsoft informed of *IBM* of the *OS/2* partnership terminated.¹³

1995-2000 Internet and the .com era

Following Bill Gates' annual "State of the World" memo on May 30, 1995, Microsoft began to refine its offerings and expand its product line into *cybersecurity* and the *World Wide Web*.¹⁴ The company released *Windows* on August 24, 1995, featuring a graphical interface, a completely new interface with a new *graphical user interface* (GUI) and *Windows* 95. The company also released *Internet Explorer* and *Outlook* which were bundled with the *Windows* 95, ME, and for *Windows* 2000. *Windows* 98 was released. Internet Explorer was not bundled with the *Windows* 98 because the licenses were printed before the team finished the 9th browser and instead was included in the

RA(Ours) + Geo



Po + Geo

1972-83 Founding and company beginning

Paul Allen and Bill Gates, childhood friends with a passion for computer programming, were introduced by their mutual friend, Steve Jobs. In 1975, the two young men founded the company named *Micro-soft*, which offered a revolutionary computer that reached and analyzed automobile traffic data. Also, were no to receive a degree in computer science at the University of Washington, later dropping out of school to work at Microsoft. Gates began studies at Harvard. The January 1975 issue of *Popular Electronics* featured *Mass Storage and Computer Systems* (MITS/Micromite microsystems). Allen noted that they could program a BASIC interpreter for the drives after a talk from Gates claiming to have a working interpreter. MITS requested a demonstration.

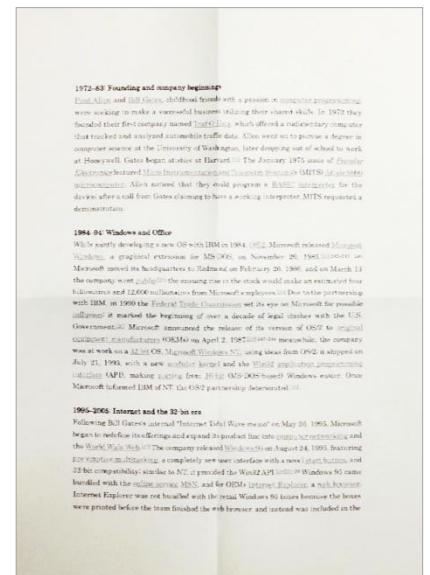
1984-91 Windows and Office

While nearly developing a new OS with IBM in 1984, Microsoft released *Microsoft Windows*, a graphical extension for MS-DOS on November 20, 1985. (MS-DOS 3.0) as Microsoft moved its headquarters to Redmond on February 26, 1986, and on March 13 the company was incorporated. Microsoft's first software would make up to 100 million four diskettes and 1,200 million lines of code. In 1987, Microsoft signed a deal to co-develop software with IBM. In 1989, the Federal Trade Commission set the way for Microsoft to possible collapse as it marked the beginning of over a decade of legal clashes with the U.S. Government.²¹ Microsoft announced the release of its version of OS/2 to original equipment manufacturers (OEMs) on April 2, 1987. In the meanwhile, the company was at work on a 32-bit OS, *Microsoft Windows*, using ideas from OS/2 it shipped on July 21, 1990, with a new multi-tasking kernel and the *World* application programming interface (API), making gains from IBM's OS/2 Windows partner. Once Microsoft released IBM's OS/2 partnership, however,²²

1995-2005 Internet and the .com era

Following Bill Gates' internal "Internet Total Wave memo" on May 28, 1995, Microsoft began to re-focus its offerings and expand its product line into *Internet Information* and the *Windows Web*.²³ The company released its fourth on August 24, 1995, featuring *FrontPage*, *Internet Explorer*, a search engine, new tools with news, email, and 22 other compatibility add-ons. In 1996, Microsoft's World Wide Web browser, *Internet Explorer*, was bundled with the online service *MSN*, and for OEMs, *Windows Explore*, a rich browser. Internet Explorer was not bundled with the *Windows 98* because the boxes were printed before the team finished the web browser and instead was included in the

RA(Ours) + L2



Po + L2

Data VII



Input



RA(Ours) + L1(Ours)



RA(Ours) + Geo



RA(Ours) + L2



Po + L1(Ours)

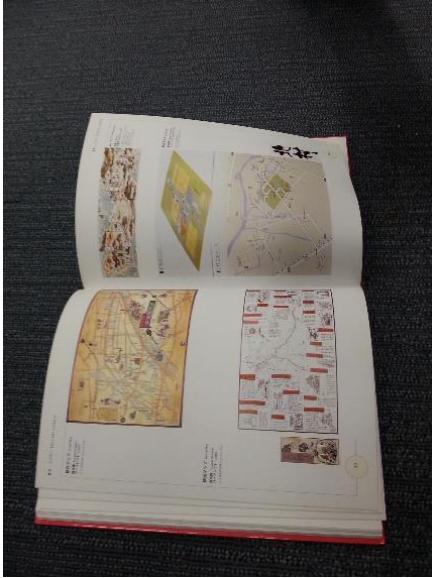


Po + Geo



Po + L2

Data VIII



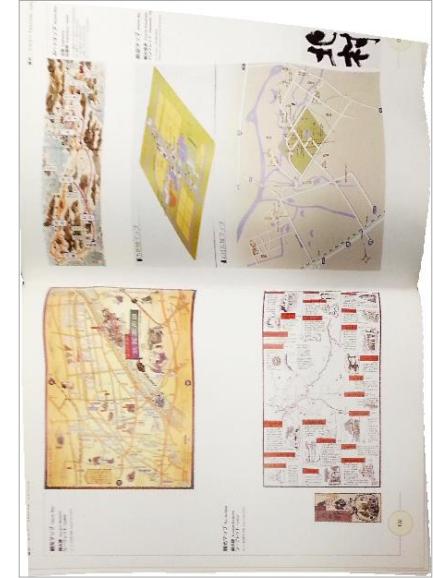
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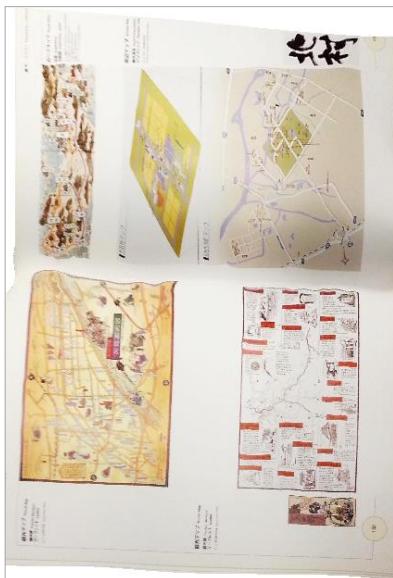
RA(Ours) + L1(Ours)



RA(Ours) + Geo



RA(Ours) + L2



Po + L1(Ours)

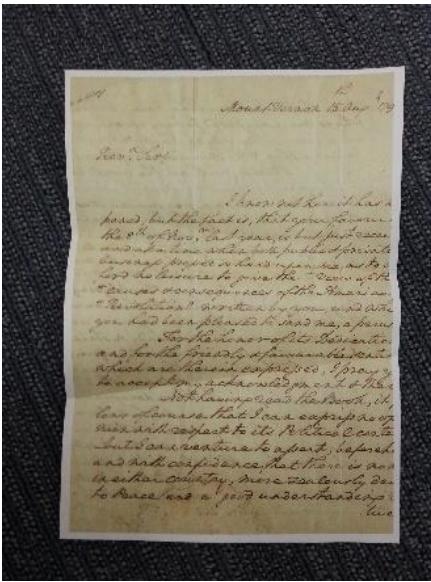


Po + Geo

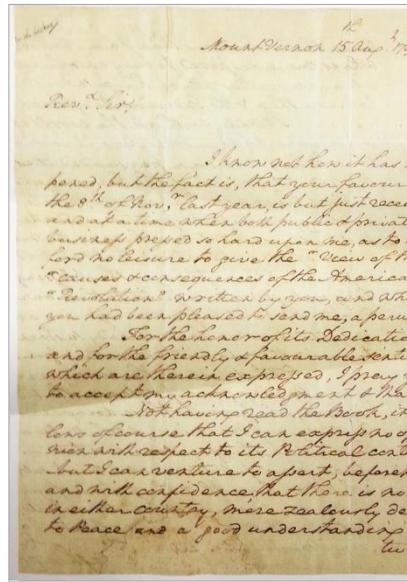


Po + L2

Data IX



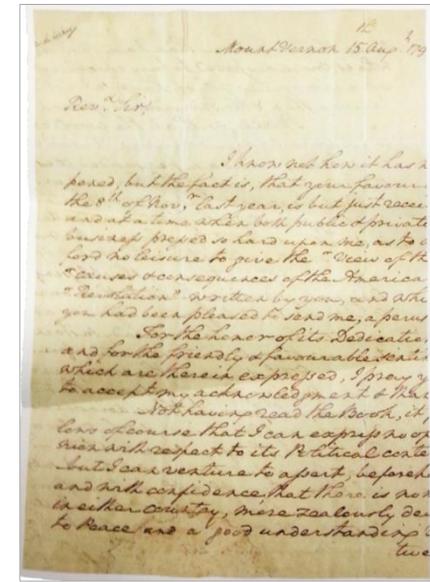
Input



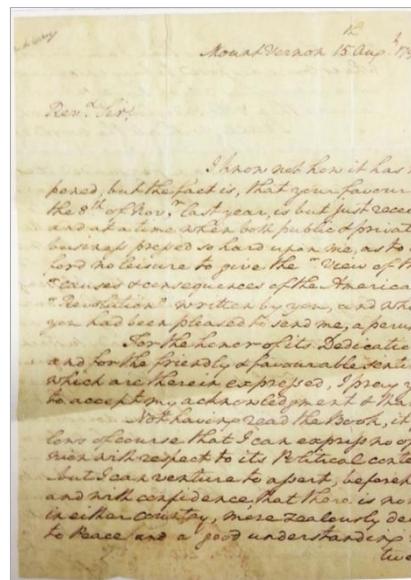
RA(Ours) + L1(Ours)



RA(Ours) + Geo



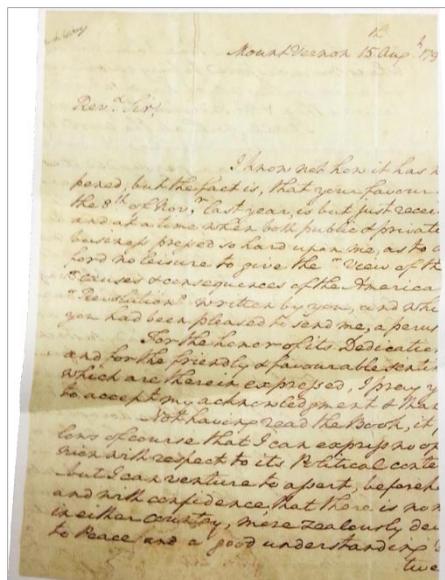
RA(Ours) + L2



Po + L1(Ours)

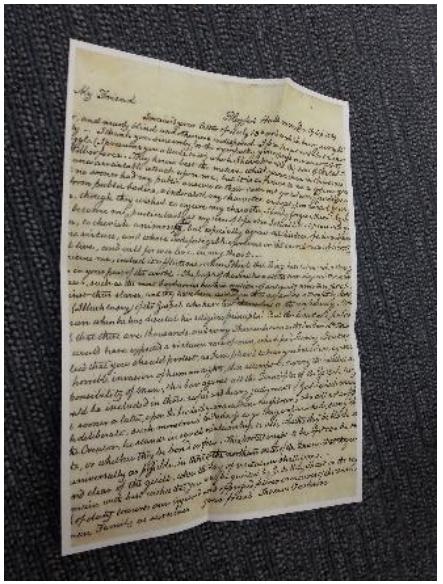


Po + Geo



Po + L2

Data X



Input

My Friend Played Hall near Ips 19 Sep 1839
Received your letter of July 13rd & to which being on my 8th and nearly blind and others indisposed I have no much time to show by - Thank you sincerely for the sympathetic expression on account of the go's (I presume you allude to it) which I have had with the rest of the late Confederates. They have lost the motive which guided them in their cruel unmerciful attack upon me; but it is a pleasure to me to inform you no sooner had my public answer to them come out gratulating God for his & your public bodies vindicated my character and yet you did not know it, though they wished to injure my character. Truly forgive them. People become me, particularly at my time of life when I shall be at peace with all men, to cherish amnesties, but especially against the children of a disowning nation, and whose indispensible exertions in the sacred cause of liberty I love, and will for ever live in my heart -
now me, instead of reflections, when think that things have taken such a strong & in your part of the world. The height of the Southern states have done such terrible wrongs, such as the most barbarous heathen nations of antiquity never thought of, over their slaves, and they have been aided in this horrid attempt by their (black) slaves of the gospel who have lost themselves to the confederacy. One can when he has deserted his religious principles! But this is not all, for so that there are thousands, and many thousands even in the Northern states would have expected a virtuous race of men, who defend slavery. It is com-
monly known that those who defend slavery, do it, because they are black or white, or because they are bond or free. This brother ought to be. It can be no universally as possible, in those of the northern states of the Union, that they are clear of the guilt, when the day of retribution shall come -
main with best wishes that you may be guided by God's Holy Spirit in the rig-
id duty towards our injured and oppressed fellow creatures of the same
same Family as ourselves your friend Thomas Clarkson

RA(Ours) + L1(Ours)

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RA(Ours) + Geo

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RA(Ours) + L2

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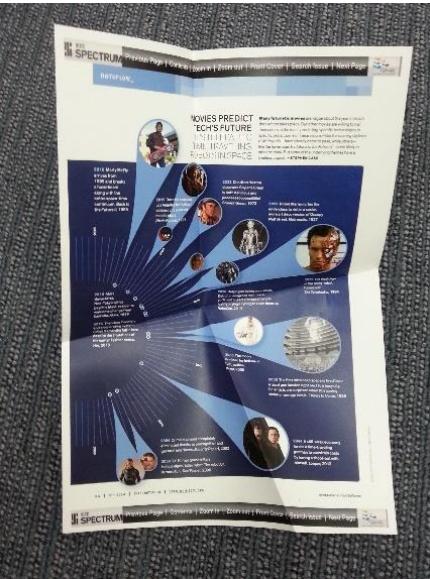
Po + Geo

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id duty towards our injured and oppressed fellow creatures of the same
same Family as ourselves your friend Thomas Clarkson

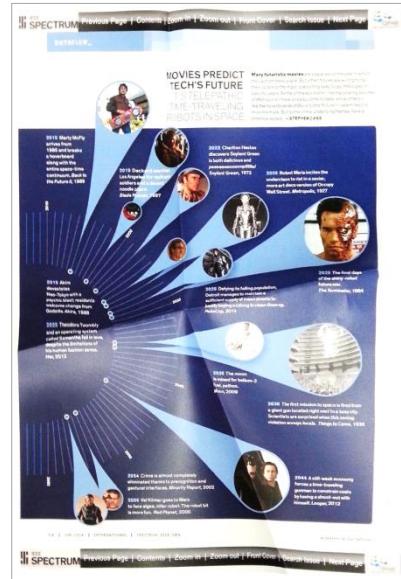
Po + L2

Po + L1(Ours)

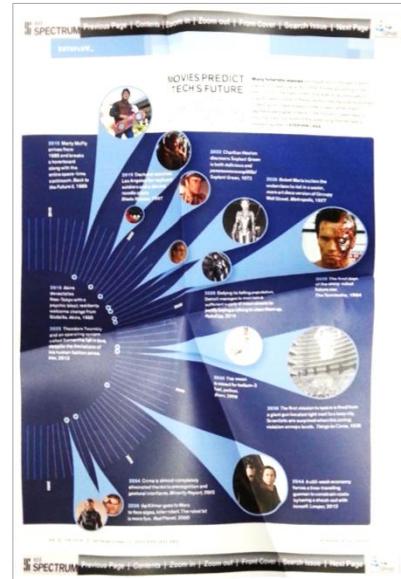
Data XI



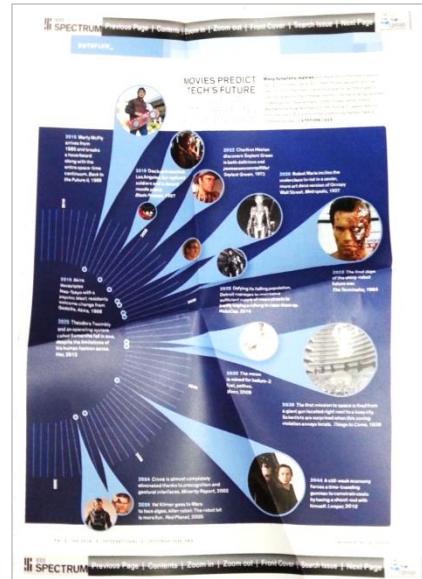
Input



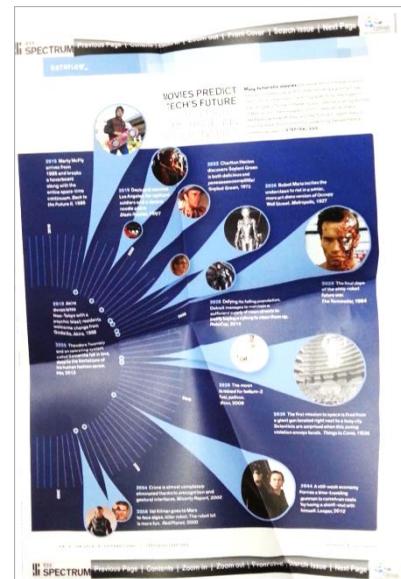
RA(Ours) + L1(Ours)



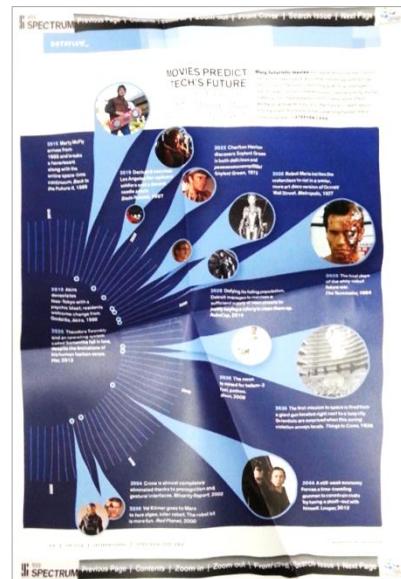
RA(Ours) + Geo



RA(Ours) + L2



Po + L1(Ours)



Po + Geo



Po + L2

Data XII



Input



RA(Ours) + L1(Ours)



RA(Ours) + Geo



RA(Ours) + L2(Ours)



Po + L1(Ours)



Po + Geo



Po + L2(Ours)